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ABSTRACT

Papers presented at the Conference were: (1) "The Development of Health Care Areas: Development and Implementation of the Concept" by O.H. Duggins, M.O. Drage, and S.S. Katz, (2) "Measuring Our Progress Toward Our Goals" by E. L. Brown, (3) "The Program and the Direction of the National Student Nurses' Association" by M.A. Tuft, (4) "The Utilization of the Registered Nurse Graduate of an Associate Degree Program in Nursing in the United States Army Medical Department" by A.M. Hays, (5) "Status of the ADN Graduate in the United States Navy Nurse Corps" by A.B. Duerk, (6) "Accreditation: What About the Public" by F.G. Dickey, (7) "The ADN Program and its Present Contribution to the Community" by M.L. Montag, (8) "Developing the Disadvantaged Student in the Community College" by J.A. Colston, (9) "Educating the Disadvantaged Student" by C.L. Dennard, (10) "Teaching the Disadvantaged" by J.K. Griffin, and (11) "What's 'Different' About 2-Year College Teaching?" by R.G. Garrison. Three presentations describe programs for the Disadvantaged in Washington, D.C., Baltimore, Maryland, and Bronx, New York. (SB)

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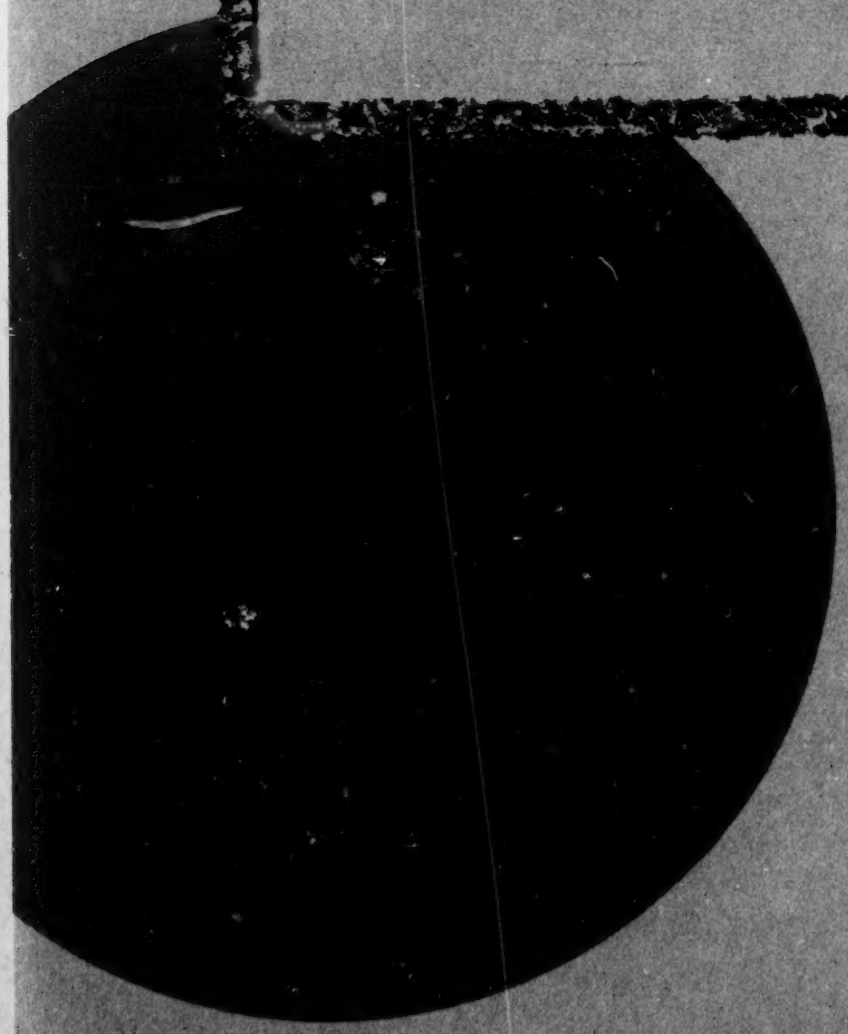

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CONTENTS

THE DEVELOPMENT OF HEALTH CORE AREAS--DEVELOPMENT OF THE CONCEPT 1

Oliver H. Duggins

THE DEVELOPMENT OF HEALTH CORE AREAS--IMPLEMENTATION OF THE CONCEPT

Presentation by Martha O. Drage 4
Presentation by Stanley S. Katz 10

THE DEVELOPMENT OF HEALTH CORE AREAS--REACTION TO THE PRESENTATIONS 22

Sister Anne Joachim Moore

MEASURING OUR PROGRESS TOWARD OUR GOALS 26

Elsa L. Brown

THE PROGRAM AND THE DIRECTION OF THE NATIONAL STUDENT NURSES' ASSOCIATION 28

Mary Ann Tuft

THE UTILIZATION OF THE REGISTERED NURSE GRADUATE OF AN ASSOCIATE DEGREE PROGRAM IN NURSING IN THE UNITED STATES ARMY MEDICAL DEPARTMENT 31

Brigadier General Anna Mae Hays

STATUS OF THE ADN GRADUATE IN THE UNITED STATES NAVY NURSE CORPS 34

Captain Alene B. Duerk

ACCREDITATION--WHAT ABOUT THE PUBLIC? 36

Frank G. Dickey

Continued

CONTENTS--Continued

THE ADN PROGRAM AND ITS PRESENT CONTRIBUTION TO THE COMMUNITY 39

Mildred L. Montag

DEVELOPING THE DISADVANTAGED STUDENT IN THE COMMUNITY COLLEGE 44

James A. Colston

EDUCATING THE DISADVANTAGED STUDENT 50

Cleveland L. Dennard

RELEVANT EDUCATIONAL OPPORTUNITIES FOR THE DISADVANTAGED AT WASHINGTON TECHNICAL INSTITUTE 54

Ernestine Brewer

HOW THE COMMUNITY COLLEGE OF BALTIMORE SEEKS TO DEVELOP THE DISADVANTAGED STUDENT 56

Devota Kimbrow

DEVELOPING THE DISADVANTAGED STUDENT AT BRONX COMMUNITY COLLEGE 59

Jean Pratt

TEACHING THE DISADVANTAGED 61

Joanne K. Griffin

WHAT'S "DIFFERENT" ABOUT TWO-YEAR COLLEGE TEACHING? 66

Roger H. Garrison

THE DEVELOPMENT OF HEALTH CORE AREAS--
DEVELOPMENT OF THE CONCEPT

Oliver H. Duggins

The community college is admittedly dedicated to the meeting of the educational needs of every facet of the community. In order to achieve this goal, it very frequently divides its curricular offerings into five areas: (1) the college or university parallel program, (2) the general curriculum, (3) developmental programs, (4) community service programs, and (5) career, or technical, programs.

The community college movement as a whole has experienced phenomenal growth during the past decade, but the area that has experienced the most rapid growth of all is the career, or technical, area. There are presently 278 recognized allied health curricula, with new ones being developed almost every week. With this rapid growth, many new kinds of problems and challenges have arisen.

First, there has been a marked shift from the scholastic to a societal view of the admission process. With growing and justified impatience, minority and poor Americans want to know why it has taken so long to achieve some kind of representation in higher education. The community colleges have met this challenge by an "open door" or "free access" policy. There has naturally been some concern as to how this policy will affect the quality of education.

Schools of nursing have traditionally been highly selective. Their students have come from the upper half and sometimes even from the upper third of their high school graduating classes. Dr. Matheny has pointed out that these selected students will usually succeed in our nursing programs in spite of the instruction.

In community colleges, the situation has been reversed. The majority of our students are from the lower half of their respective high school classes. This type of student requires an altogether different kind of approach and presents a real challenge. Benjamin Bloom and his staff at the University of Chicago, on the basis of their own work, say that given sufficient time and the appropriate kind of help, 95 percent of all students can master a subject, but mastery will occur at very different times for each student and only if each is led with the kind of help appropriate for him.

The core curriculum is, in part, a response to this kind of need. One example of the core curriculum might well be a program materials learning laboratory. Students in all career programs, including programs in nursing, are frequently found to be deficient in reading, mathematics, and other basic subjects. On the basis of our experience, all freshman nursing students are assigned to a math lab, where emphasis is placed particularly on the metric system, conversions, the determining of percentages, et cetera.

A reading test was administered to each of our 100 entering nursing students this fall. Forty-three scored below the 10.5 grade level, considered to be minimal for college

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achievement. A number scored at the 7th or 8th grade level. We have found a very definite correlation between reading level and achievement in the nursing program and other allied health programs. We are recommending--and may require--that students attend the reading lab and raise their score to at least the 10th grade level in speed, vocabulary, and comprehension in order to be admitted to the nursing major.

Another very real problem that has developed with the proliferation of technical and career curricula has been the matter of cost. The cost per credit hour for a nursing student at our college is about $71, while the cost per credit hour for the biology student is $16 and for the student of the humanities or social sciences, about $12. In other words, we can train four biologists for each nurse. The technical programs, because of their high costs, necessarily find themselves in competition with other college curricula for limited college funds. We know that we can educate the nurse more economically than she can be trained elsewhere, but the hard, cold facts indicate that we must ever seek new ways of effecting economies.

The core curriculum is also a partial response to this question. If students from several related allied health areas can all attend certain basic core courses together, there will undoubtedly be a financial saving.

A course in communications may meet the English requirement for all career curricula. Similarly, a course in human relations may be tailored to fulfill the social science requisite. A course in chemistry relating to human functions could well be designed to meet the needs of all allied health curricula. Dental assisting and dental hygiene students could share such courses as orientation to dentistry or roentgenology. In this way, not only would a financial saving be achieved but some lateral mobility from program to program would be afforded.

At this time, it might be well to clarify our impression and interpretation of the scope and meaning of the term core curriculum. If core curriculum refers to a monolithic ladderlike structure that reduces the skills of the various groups to a series of tasks arranged by systems organizers in terms of complexity without reference to human differences and to the quality of interaction, then I agree with Dr. Shetland of Wayne State University--I am unqualifiedly opposed to such a scheme. Some proponents of this system place the aide at the bottom and the surgeon at the top and classify as "dead-end" those occupations that do not have the built-in potential for upward mobility. This would tend to negate the integrity of all of the occupational groups "locked in" this ladder.

If, on the other hand, core curriculum refers to a sequence of courses common to a number of related career programs that has been instituted for the purpose of making it possible for a student to move from one level or career to another with a minimum of lost time and without having to duplicate related courses and for the purpose of effecting a financial saving, then this procedure would seem to be wholly acceptable.

In many institutions, including my own, where courses in two programs are not identical but where course content is similar, there certainly should be a built-in provision for challenging a given course or portion of a course. The same provision should apply if past experience would suggest proficiency in a certain area.

Another approach to the core curriculum is in operation and under investigation at the Kellogg Community College and a number of other schools. This is the core-cluster approach. This program permits the student to register for a number of health-related subjects for exploratory purposes without first making a commitment to any specific curriculum. Since the courses in the cluster will be applicable to several curricula, the

student will have the opportunity to make a meaningful selection of a career based upon his sampling of programs with little or no loss of credit or time. It is hoped that this procedure will reduce the number of dropouts once a specific field is selected. Dropouts are extremely costly both in money and to the morale of the individual. Most community college students certainly do not need another failure.

Some schools, including our own, offer a course in the general curriculum entitled "Survey of Allied Health" or something similar, in which all of the allied health fields are presented and described by experts in their own particular specialty. Hopefully, this course assists the student in making the most meaningful selection and will reduce the number of dropouts.

In some instances, the first semester or even the first year of several programs may be the same. At Kellogg Community College, the aspiring student of nursing enrolls in a curriculum common to the preparation of both the licensed practical nurse and the associate degree nurse. After the first semester, students are counseled to pursue an additional semester leading to licensure as a practical nurse or three additional semesters culminating in an associate degree in nursing.

At Forest Park Community College, students enter a food program for one year. At the end of the first year, the student elects to specialize in hotel, motel, or restaurant management or institutional food service.

The core curriculum is one of the most talked-about concepts in modern education today and probably one of the least practiced. Most of us are working at the concept, however, and our next speakers will discuss "Implementation of the Concept."

THE DEVELOPMENT OF HEALTH CORE AREAS--
IMPLEMENTATION OF THE CONCEPT

Martha O. Drage

When one considers the rapid changes that are occurring in our society, it is understandable that we mortals are having difficulty in searching for new and better ways to cope. It is said that from the beginning of recorded history to 1900, man's knowledge doubled; from 1900 to 1950, it doubled again; from 1950 to 1960, it again doubled; and it is projected that in 29 years --in the year 2000--man's knowledge will be one thousand times greater than it is today.

The Technological Revolution that has prompted most of the changes in our society is a peculiar "critter":

- It has no morals.
- It doesn't care whether it is used for good or evil.
- It doesn't care whether it is used by friend or foe.
- It is very efficient--it will eliminate polio or people.
- It has no feelings.
- It can be used to create a Hell or a Paradise.

Ten seconds isn't very long; and yet, in ten seconds man can fire a missile, compute many difficult scientific or engineering problems, or even decide the fate of the world. However, ten seconds in relation to the thousands of years of mankind's history is nothing.

Less than five years ago, if one had compressed all of mankind's history into the lifetime of a 50-year-old man, this is what would have happened:

- Ten years ago, he would have stopped being a caveman; this means that he would have spent the first 40 years of his life doing nothing.
- Five years ago, he would have invented some kind of pictorial writing.
- Two years ago, he would have become a Christian.
- Fifteen months ago, he would have had the printing press.
- Twenty days ago, he would have learned how to harness electricity.
- Eighteen days ago, he would have invented the airplane.
- Ten days ago, he would have had the radio.
- Four days ago, he would have had the television.

Using this compressed scale, the jet airplane was invented as I began talking, and the computer was just now brought on the scene.

We have to admit that even when we were making progress slowly, we weren't too bright about keeping up with it. Mark Twain left home when he was 18 because he couldn't get along with his father. When he returned at the age of 24, he couldn't get over how much his father had learned in 6 years. Most of us have felt the same way,

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but if our parents were 20 to 30 years behind, it didn't matter too much. In these exploding times, if we are 20 to 30 months behind, we are worse off than our parents ever were.

According to Alvin Toffler, in his book entitled Future Shock,[1] "In the three short decades between now and the turn of the millennium, millions of psychologically normal people will experience an abrupt collision with the future. Affluent, educated citizens of the world's richest and most technically advanced nations will fall victim to tomorrow's most menacing malady: the disease of change. Unable to keep up with the supercharged pace of change, brought to the edge of breakdown by incessant demands to adapt to novelty, many will plunge into future shock. For them, the future will have arrived too soon."

And what has all of this to do with those of us assembled here--with core curriculum the topic under consideration? Everything; because, philosophically, most of us are locked into a system of thinking of the utilization and the preparation of health manpower as they were 20 to 30 years ago--not as they could, should, and must be today. For most of us, the future has come too soon. If we are to get from where we are to where we must be, we must accommodate ourselves to change; we must be willing to disenthrall ourselves from the past and optimistically endeavor to create innovative patterns of education to meet the challenges of today and of the rapid succession of tomorrows.

When requested to share with you the core curriculum in the health occupations offered at Long Beach City College, I felt that the sharing of the process through which we have gone was of as much import as the results achieved to date.

In 1959, Long Beach City College initiated an associate degree nursing program. Three years later, the local community requested the college to assume the responsibility for the vocational (practical) nursing program that had been conducted by a local hospital for approximately 12 years. With the advent of Medicare, a new nurse was born--the home health aide; the college was asked to prepare students for this level of work as well.

More than 50 advisory committees serve in the conduct of the technical-vocational programs offered at Long Beach City College. The philosophy of our institution is to have knowledgeable people functioning in the realities of the world of work serve on these committees. They are not public relations groups per se; they are not rubber-stamp committees. The Nursing Advisory Committee is no exception; it is composed of the nursing service directors of the local health department, the Visiting Nurse Service, and the eight hospitals in which our nursing programs are conducted. The chairman of the baccalaureate nursing program at California State College, Long Beach, also serves on this committee. These directors represent the pulse of nursing in our community. From a service point of view, they interpret to us the need for new programs and for expansion and changes in existing programs. In like manner, we in education communicate the problems we encounter in trying to meet their needs--for instance, the inconsistencies that exist in the utilization of nurses at the assistant, vocational, and registered nurse levels.

The effectiveness of this shared responsibility between nursing service and nursing education was demonstrated during the designing of our nine-week nursing assistant program, which was instituted in 1966.

Core curriculum was a budding idea at that time, and we capitalized the concept. As a committee, we identified those knowledges and skills requisite to functioning at the assistant level in the hospital setting; then we compared them with the knowledges and

skills required of the nursing assistant working in a home health agency. The similarities were far greater than the differences; thus, a curriculum evolved that would prepare trainees to function in either setting.

As soon as this program was under way, we began to scrutinize critically our vocational nursing program. Every basic knowledge and skill taught in the six-unit nursing assistant program was included somewhere in our vocational nursing program. We restructured the curriculum so that the first six-unit course in the vocational nursing program included these common elements. Since 1967, we have been giving advanced placement in the vocational nursing program to trainees who have successfully completed our nursing assistant course. Unnecessary repetition of previously learned material was eliminated by exempting them from the laboratory portion of the course. Attendance at specified lectures was required.

Another benefit was identified. Those students who could not continue in the vocational nursing program for reasons other than poor performance could "spin off" as a nursing assistant. On the basis of our success with this approach, we began to study the similarities and differences in our VN/PN and ADN programs. For the past five years, every L.V.N./L.P.N. admitted to the ADN Program has been asked to identify the point at which he or she started to learn new things. The majority indicated that all L.V.N.s should be required to attend all of the lectures in the first nursing course but that most of the laboratory aspects of this course could be eliminated. During this period of study, on an annual basis, two instructors were rotated--one from the VN to the ADN program and one from the ADN to the VN program. Three ADN instructors taught in the summer sessions of the VN program, and a part-time clinical instructor was assigned to teach in the ADN program in the fall semester and in the same clinical area in the VN program in the spring semester.

While this approach was not structured sufficiently to be entitled research, we gained some valuable insights. The teachers involved observed that there were few identifiable differences in the execution of basic nursing skills. The greatest difference noted was in the cognitive domain--in the ability to think, assess, and make judgments.

As expected, the VN students did not act as independently as the ADN students, since the VN students had been taught throughout their educational experience to seek guidance from the R.N. The ADN student is taught to assume responsibilities inherent in her future role as an R.N.

Comparisons of the "best" VN students with the "weakest" ADN students made us pause to consider many things. Should another pattern of education be constructed? Would it be possible to reorganize the two-year program so as to enable the licensed vocational nurse to get advanced placement? Could we design our own career ladder? We noted a significant difference between our first- and second-year ADN students. As expected, the first-year students were quite dependent. Independence, which comes from a multiplicity of learning experiences, enabled the typical second-year student to assess, make judgments, and act in a progressively independent manner.

On the basis of these observations, we are restructuring our ADN program into a pattern of first- and second-tract course work. We envision that the first tract will closely resemble the content offered in our VN program.

Simultaneously with this study, we worked with members of the Life Science Department to determine the depth and breadth of, and the similarities and differences in, the life science courses taken by VN and ADN students, respectively. Because the community had requested the college to expand program offerings in the health occupations, life science teachers were included on the advisory committees instituted to establish two

new two-year programs--one in inhalation therapy technology and one in radiologic technology. A concerted effort was made to identify what each of the two technologists does, what judgments he has to make, and what knowledge he must have in order to make the necessary judgments and to perform the necessary functions within his respective field. The teachers went to the hospitals; they sat with hospital committees; they witnessed, firsthand, what the products of our programs would be expected to do and know; they continued to work closely with the nursing faculty.

New courses were instituted, evaluated, and changed. Methods of presenting the courses were scrutinized; core concepts were identified. After several years of study and refinement, a ten-unit life science core evolved and was initiated in the present school year as follows:

Biology 60--Human Biology

4 units of lecture.
Demonstrations in lieu of laboratory.
Includes:
- Concepts of physics and chemistry.
- Anatomy and physiology.
- Microbiology.
- Normal nutrition.

Biology 61--Pathology

3 units of lecture.
Demonstrations in lieu of laboratory.
Includes the most common diseases/conditions affecting our population.

Biology 62--Advanced Human Biology

3 units of lecture.
Demonstrations in lieu of laboratory.
Includes more in-depth coverage of principles of anatomy and physiology and microbiology, such as electrolyte balance, fetal development, diagnostic methods, and epidemiology.

Students enrolled in the following programs will take the life science courses as indicated:

Program	Core Science Courses
ADN	Biology 60, 61, and 62
VN	Biology 60 and 61
Medical Assisting	Biology 60 and 61
Inhalation Therapy	Biology 60 and 61
Radiologic Technology	Biology 60 and 61

Few textbooks currently in print lend themselves to the teaching of these core courses.

During the years of experimentation with courses, Mrs. Virginia Thomas, a life science teacher, wrote a textbook for Biology 60. The content is presented in semiprogrammed, semicontrolled note form. A similar approach to the writing of textbooks for Biology 61 and 62 was planned. The first draft of the textbook for Biology 61 has been completed.

We envision that these core courses will facilitate upward and lateral mobility within our health technologies.

For a variety of reasons, some of which are beyond the control of learner or teacher, some students must change their educational goals. To facilitate salvage, we have endeavored to include spin-off routes as well as upward and lateral mobility in the proposed curriculum design.

We will implement a pilot core/spin-off program in nursing in September of 1971. We wanted a full year of experience with the core science courses before we initiated the core nursing courses.

When the proposed plan is implemented, a pilot group consisting of students with a high school education or the equivalent who wish to complete a program leading to licensure will be admitted to the same program. The first two semesters of this program will include core nursing, core science,and general education courses. At the end of the first two semesters, those students earning "C" or better grades in the nursing and science courses will proceed into the program leading to licensure as a registered nurse. At the end of the first and second semesters, students who do not qualify for continuance in the ADN program may, if recommended, spin off into a program leading to licensure as a vocational nurse.

A student who qualifies for continuation in the ADN program but prefers, for personal reasons, to spin off in the vocational nursing program may reenter the ADN program at a later date without unnecessary repetition. This provides for a career ladder in nursing.

Credit by examination will be given to L.V.N.s/L.P.N.s who are graduates of other accredited programs. They, of course, must meet the college and licensing board requirements for admission to the ADN program.

Students who do not qualify for continuation in the ADN or VN program at either of the decision points may reenter the program, upon recommendation, when they have made up deficiencies. The point of reentry will be made on an individual basis.

In the kaleidoscopic world of nursing, service personnel have had difficulties in assigning the various kinds of nurses. In many settings, due to tradition, registered nurses have been functioning in a role that, in the light of present preparation, could be assumed by vocational nurses. Compounding the problem are inconsistencies in assignments made in order to cover staffing needs 24 hours a day, 7 days a week, and for budgetary reasons. These common practices have confused both the R.N.s and the L.V.N.s; many cannot discern the differences in their roles. Hopefully, role identification will be expedited by the proposed curriculum. Students completing any of the three plans should gain insight into the differences in their preparation.

In California, the legislators have taken an active role in providing for what they believe to be an equitable career ladder in nursing and the health technologies. Because nurse educators have not picked up the cudgel in this regard, bills have been passed that mandate the giving of credit for previously acquired knowledges and skills. Living with these requirements is not easy when one does not philosophically accept or know how to evaluate the knowledge and skills gained in a previous educational or work experience.

Restructuring a curriculum to provide for spin-off and upward mobility is hampered by the human element in all of us--our emotional ties to the known, our basic resistance to change. Compounding the problem is the fact that we can't stop the world, get off, and make order out of chaos; we must comply with the all-too-often rigid licensing board regulations; we must cope with the bills passed by well-intentioned but ofttimes unenlightened legislators; we must combat the vested interests of professional organizations that champion the cause of a specific segment in nursing. In addition, societal problems and issues have a direct or indirect influence on education in the health occupations. These include population explosion, the drug scene, technological advancements that create problems of mechanization and dehumanization, racial strife, primary health care as a right rather than as a privilege, and the emphasis on meeting the needs of deprived groups. It is essential that some group or groups--perhaps the two organizations represented here--provide leadership to assist in solving these multiple and complex problems. Financing experimental programs, providing a clearinghouse for the dissemination of information, and providing valid and reliable tests for assessing previously gained knowledges and skills that could be used for advanced placement are but a few examples of what could be done on a national level to help ease the strain imposed on all of us.

As the pace of our society accelerates, we seem always to be en route, never at our destination. Lucy Tantamount in Huxley's Point Counterpoint declared that "Living modernly is living quickly." She should be with us now! For us, it would seem, the future has come too soon; but the optimist would hope that we can accommodate ourselves to change, that we can be innovative in designing patterns of education that can adjust to the accelerated changes in our transient society.

Reference

1. Alvin Toffler. Future Shock. New York, Random House, 1970.

THE DEVELOPMENT OF HEALTH CORE AREAS--
IMPLEMENTATION OF THE CONCEPT

Stanley S. Katz

The implementation of the concept of "core" has been widely discussed by such notable allied health educators as Kinsinger (Kellogg Foundation), Hamburg (University of Kentucky), Light (Chicago Medical School), Mase (University of Florida), and others. Students representing a variety of health occupations should be able to share many educational and training experiences so that they might better understand not only their role in the health care system but also the role of other health providers and consumers.

In the Boston area, Northeastern University, in a recent study of university programs for the health-related professions (August 1970),[1] included the following as two of its objectives:

> 1. To study the possibility of establishing core programs for certain clusters of allied health medical curricula which would be common to all students during the first part of their training. Such core programs might reduce educational expense as well as permit deferment of specific occupational choice by students until they are in a better position to choose wisely.
>
> 2. To study the possibility of creating ladder progression and lattice planes of education which would permit increased lateral as well as upward mobility for the various specialists in health-related professions. In this connection, to consider potentials of the University in preparing health technicians as teachers within their fields of specialization.

A major recommendation of the study is the establishment of a College of Health-Related Professions with curricular offerings from the masters to the associate degree level.

> The College would be expected to create and offer appropriate new professional curricula related to health care and health arts, but not to duplicate those now given by existing colleges such as nursing and pharmacy. The criteria recommended for use in the preparation of new curricula were:
>
> > Provision of broad, basic knowledge which will enable students to keep up to date and professionally competent in health fields, even though current skills and techniques become obsolete.
> >
> > Provision of sufficient personal and technical skills to give students competence for immediate professional work in health care.

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Maximum possible opportunities for students to continue their education and professional development, either horizontally or vertically, consistent with their interests, experience, and demonstrated competence.

Recognition of a broad health care spectrum in which curricula may be developed and in which students may wish to study at various stages of their careers, including preventive medicine, health education, diagnostic and therapeutic health, mental health, rehabilitation administration, etc.

As a starting point in the search for a core curriculum for undergraduate health programs, a study was made of faculty opinion concerning the topics of basic importance, utilizing the assistance of faculty in the College of Education.

What are the categories of content areas that are relevant to a core curriculum in health? This question was posed to the faculty teaching in the various undergraduate health programs at Northeastern. The major technique used in the study was a sophisticated procedure for the statistical analysis of forced-choice, structured answers.

Results of the Q-sort study indicated that three closely related courses were considered most relevant to a health core curriculum: Anatomy, Foundations of Medical Science, and Physiology. The complete results are shown in Figure 1.

An analysis in terms of just 4 major categories of subject matter provides a much different perspective than one in terms of 40 different individual courses. From this, there emerged 4 factors, or empirically derived major categories, which are, listed in order of relevancy as indicated by their mean relevance scores:

Category	Score
Psychology	7.31
Medical Science	6.48
Science-Management	5.84
Humanities	5.09

Psychology achieved the top position in the list because of the aggregate importance that the respondents gave to a combination of courses with emphasis on psychology--medical care, basic psychology, psychological nursing, abnormal psychology, and human development. Within the medical-science category, there were some courses that did not receive a uniformly high relevance rating, thus downgrading the broad category despite the high relevance rating given the individual courses in anatomy and physiology.

Together with several Boston community-action groups, Northeastern established some curricula primarily vocational in nature but offering some opportunity to advance to college credit work.

Both within Northeastern and at cooperating community agencies, a few "ladder" programs were established. Bridges were provided to encourage students to attain a higher level of professional skill without having to start at the beginning of a new educational program. In the traditional educational patterns, for example, a practical nurse must go back to the beginning of an R.N. program and duplicate much of what she studied to become a practical nurse. However, if "ladder" programs of the type described below become firmly established, a person starting with a vocational program might look forward to becoming at least a quasi physician at a community health center.

Figure 1. Results of the Q-Sort Study Summarizing Opinions on the Relevance of Courses to a Core Curriculum for the Health-Related Professions

Course	Average Rating	Standard Deviation
Anatomy	10.071	1.177
Foundations of Medical Science	8.595	1.913
Physiology	8.333	2.260
Medical care	8.119	1.903
Medical terminology	7.571	2.243
Hospital law and ethics	7.548	1.383
Sociology	7.524	2.075
Psychology	7.405	1.964
Human development	7.214	1.570
Psychiatric nursing	7.167	1.886
Microbiology	7.048	2.034
General biology	6.976	2.147
Historganology	6.929	2.100
Public speaking	6.738	2.142
English	6.690	2.225
Abnormal psychology	6.619	1.577
Business conference techniques	6.310	2.147
General chemistry	6.238	2.564
Social anthropology	6.214	1.690
Introduction to philosophy	6.095	2.034
Genetics	6.071	2.041
Medical-surgical nursing	6.071	2.213
Mathematics	5.881	2.606
Statistics	5.857	1.842
Industrial psychology	5.619	1.766
Hematology	5.476	1.851
Human relations	5.452	1.915
Western civilization	5.381	2.024
Organic chemistry	5.262	1.835
Management and organization	5.214	2.170
Computer programming	4.905	2.093
U.S. history	4.643	1.986
General physics	4.619	2.469
Introduction to literature	4.524	2.144
Analytic chemistry	4.476	2.121
Economics	4.381	1.912
Accounting principles	4.238	2.058
Electronic data processing	4.214	2.215
Principles of political science	3.905	1.872
Calculus	3.833	1.987
Instrumentation and radio chemistry	3.619	1.975
Circuit theory	2.952	2.012

Futhermore, those who earn the associate degree may apply much or all of this credit toward a B.S. degree in University College, depending on the field of study selected. This might be a concentration in liberal arts or management. Some, but not all, of the academic work might also be credited toward a baccalaureate program in cytotechnology or medical technology.

A program that many educational institutions strive towards but rarely achieve is the R.N. program for licensed practical nurses. Northeastern University, through its College of Nursing, is now admitting practical nurses to an experimental program. Funded by the United States Department of Health, Education, and Welfare, this four-year pilot project is entitled "Credit Allotment for Selected Licensed Practical Nurses Who Transfer to an Associate Degree Program." Many applications from experienced nurses have already been received, making selection difficult. The program has been approved by the Massachusetts Board of Registration in Nursing. Qualifying examinations will be used for the awarding of college credit for work completed as part of the practical nursing training.

Innovation is also being tried in Southern New England. In the New Haven area, the development of a core plan has been started in the three New Haven high schools in the 11th grade as a prenursing and preallied health occupations core curriculum.[2] The philosophy and goals of health careers programs in the comprehensive high school are to help the students to obtain the basic orientation necessary to stimulate student interest in high school nursing and allied health education. A series of objectives have been organized to expand the course offerings in biology, electronics, laboratory technology, animal technology, and preradiologic technology and to include prenursing and a number of allied health specialties in the future. The strategies involved include:

1. Development and implementation of a comprehensive plan of health-careers counseling in the New Haven public schools, particularly in grades 7 through 12, with additional consideration directed to the elementary grades.
2. An early introduction to health-careers opportunities for high school students through the development and implementation of appropriate health courses at the high school level.
3. Development of college-level health-careers programs (one, two, three, and four years) that encourage and permit continuation of training started at the high school level, with enough flexibility to permit changing the occupational outcomes with the least amount of sabotage of the individual's past education and experience and to preserve high motivation to remain employed in the health-care system.
4. Development and implementation of adult education programs in specific health-oriented careers (especially for neighborhood workers), with built-in opportunities for career mobility.
5. Setting up of a program of financial aid for high school students graduating from the health-careers curriculum and requiring financial assistance in order to continue in a college-level program in health careers.
6. Establishment of a job-placement and follow-up program for graduates completing either high school or higher-level training programs for appropriate job opportunities in the health-career field.

7. Development of inservice and continuing education programs, utilizing in part a multiple-media approach, designed:

   a. To upgrade the skills of those presently engaged in health fields.

   b. To encourage and to enable those who have been out of their fields for a period of time to return to work.

   c. To introduce those presently employed to new skills and techniques.

Curriculum development would entail the development of specific courses of studies in health careers, the revision of other academic courses to correlate with the health-careers program, the training of teachers, and the acquisition of trained allied-health professionals as new teachers to help implement these courses.

Because courses and programs are suggested for specific grades or levels, it should not be assumed that all will be completely confined to the physical environment of the high school or the college classroom. Facilities at the high school, college, hospital, and medical school as well as out-of-hospital community health facilities will be cooperatively utilized to make the best use of required equipment and necessary teacher resources--but always with the single objective of establishing the optimum "teaching-learning" situation for all students. Maintaining this necessary high level of effectiveness may at times call for duplication of teaching-learning situations within the city.

A suggested sequence of courses or programs at the secondary and college levels has been outlined. This sequence, oriented toward a "target population," serves as a guide to indicate the direction for specific development of courses and programs considered worthwhile. Outlines of proposed health-career curricula follow this page--Figures 2, 3, and 4.

In grades 7 and 8, orientation to health careers in general would be accomplished in conjunction with orientation to a variety of other career opportunities.

The target population for this phase would be the entire 7th- and 8th-grade population (about 2,200 students). In grade 9, the physical science course would be revised to include a weekly orientation to careers in the science field, with particular emphasis on health careers and environmental health. The target population for this phase would be approximately the entire 9th-grade population (about 1,200 students).

At the beginning of grade 10, an increased degree of career selection for the health field will commence. One segment of the high school biology program will have a specific orientation towards the health-careers field. This course would be labeled Biology-Health Services and would contain specific content on particular practices in some health occupations as well as a continuation of the general health careers orientation. Students with average or below average academic performance records and low socioeconomic status and who are rapidly becoming alienated toward apparent irrelevant school programs and academic endeavors would be encouraged to select the Biology-Health Services Course. This group should include those students traditionally classified as mentally retarded juvenile delinquents. The target population for this phase would be about eight classes in each of the three high schools (about 600 students).

At the 11th and 12th grades, specific courses that lead to definite health career occupations would be offered. These courses would receive students from the Biology-Health Services Course and the regular biology course. The majority of the students would be from the former. The target population for specific courses starting at grade 11 would be indentified from a "student pool" of about 700 students. It is expected that approxi-

Figure 2. Proposed Health Career Curriculum

Grades 7 & 8	GENERAL HEALTH CAREERS ORIENTATION			
Grade 9	HEALTH CAREERS ORIENTATION AND ENVIRONMENTAL HEALTH - PHYSICAL SCIENCE			
Grade 10	BIOLOGY--SPECIFIC HEALTH SERVICES			
Grade 11	Pre-Nursing I & Human Physiology	Pre-Nursing I & Human Physiology	Pre-Nursing I & Human Physiology	Medical Record Keeping & Human Physiology
Grade 12	Pre-Nursing II & Gen. Chem.	Occupational Therapy Tech. & Gen. Chem.	Physical Therapy Tech. & Gen. Chem.	Hospital Administration & Gen. Chem.
Level 13	Nursing or Physician Asst.	Physician Assoc.	Rehabilitation Asst.	Occupational Therapy
Level 14	↓	↓	↓	↓
Level 15		↓		↓
Level 16		↓		↓

Level 13	Rehabilitation Asst.	Physical Therapy	Med. Secretary	Health Services Administration			
Level 14	↓	↓	↓	↓			
Level 15		↓		↓			
Level 16		↓		↓			

Figure 3. Proposed Health Career Curriculum

Grades 7 & 8	GENERAL HEALTH CAREER ORIENTATION			
Grade 9	HEALTH CAREERS ORIENTATION AND ENVIRONMENTAL HEALTH - PHYSICAL SCIENCE			
Grade 10	BIOLOGY--SPECIFIC HEALTH SERVICES			
Grade 11	Basic Electronics I & Human Physiology	Basic Electronics I & Human Physiology	Dental Asst. I & Human Physiology	X-ray Tech. Asst. I & Human Physiology
Grade 12	Basic Electronics II & Gen. Physics	Instrumentation Tech. & Gen. Chem.	Dental Asst. II & Gen. Chem.	X-ray Tech. Asst. II & Gen. Physics
Level 13	Instrumentation Tech. or Radiologic Tech.	Instrumentation Tech. or Radiologic Tech.	Physicians Assistant	Dental Laboratory Tech.	Radiologic Tech. or Optometric Tech.
Level 14	↓ or	↓ or	↓		↓ or
Level 15					
Level 16	↓	↓		↓	↓

Figure 4. Proposed Health Career Curriculum

Grades 7 & 8	GENERAL HEALTH CAREERS ORIENTATION			
Grade 9	HEALTH CAREERS ORIENTATION AND ENVIRONMENTAL HEALTH - PHYSICAL SCIENCE			
Grade 10	BIOLOGY--SPECIFIC HEALTH SERVICES			
Grade 11	Lab. Tech. I & Gen. Chem.	Lab. Tech. I & Gen. Chem.	Lab. Tech. I & Gen. Chem.	Lab. Tech. I & Gen. Chem.
Grade 12	Lab. Tech. II & Gen. Physics	Animal Tech.	Surgical Tech.	Inhalation Therapy Tech. & Gen. Physics
Level 13	Cyto-Tech. ↓	Med. Tech. or Clinical Micro-Biology or Clinical Chem. ↓	Animal Lab. Assistant ↓	Animal Lab. Tech. ↓
Level 14	↓	↓	↓	↓
Level 15		↓		↓
Level 16		↓		↓

Surgical Tech. ↓	Physician Asst. ↓	Inhalation Therapy ↓	↓
↓	↓	↓ or	↓
	↓		↓
	↓		↓

mately 400 students would elect to start a specific health-careers course sequence at grade 11. Approximately 350 students would continue in a specific health-careers sequence at grade 12. It is anticipated that this projected student enrollment for the 11th and 12th grades would be achieved by the end of the third year of the project's operation.

Five years after the start of the program, the estimated number of students graduating yearly from high school with specific training in a health-careers field will be between 300 and 400.

With this background in mind, I would like to present a modest coordinated attempt to develop harmonious course arrangements for 15 science, nursing, and allied health offerings at the college I am associated with. Quinnipiac College has, over a period of 30 years, extended its science and allied health offerings to include some 13 programs, and 2 more are expected to begin in the fall of 1971. I have included all the current and projected new programs as examples in my presentation. (See Figure 5 on the following page.)

Quinnipiac, a comprehensive college (having Divisions of Liberal Arts, Business Administration, and Science and Allied Health Programs) has an enrollment of 2,300 day students and some 800 continuing education students. I might note that we have an integrated Division of Science and Allied Health Programs, which includes three departments: Allied Health, Biology, and Chemistry and Physical Sciences. We expect to expand our day enrollment to about 3,500 students by the year 1975. In the following figures, I would like to compare the core courses common to a number of our Junior College and Senior College Science and Allied Health Programs.

I would like to note that Biology 111-112, English 101-102, and some of the levels of math are acceptable for transfer to our Senior College. A number of our Junior College Science and Allied Health students have changed their curricular goal from one Junior College program to the next, as well as from the Junior College to a Senior College program. The student is counseled early in his college career and often enough so that course changes can take place with a minimum loss of credit and time.

Some allied health students who have completed their clinical requirements and are working--i.e., in Radiologic Technology, Inhalation Therapy, Practical Nursing--through our division of continuing education, work toward an associate degree on a part-time basis, completing the academic courses that have to be taken, or prepare for additional clinical experience.

Figure 6 represents the core courses common to the Senior College science and allied health offerings. In our core course arrangements, we have attempted to build in flexibility so that students might alter their goals and career choices (hopefully remaining in the allied health area) without substantial loss of credit.

Note that the Occupational Therapy and Physical Therapy programs have a core program for the first two years, including a joint orientation seminar, so that students with no loss of credit can transfer from Occupational Therapy to Physical Therapy and vice versa.

The college has recently joined other colleges and universities as part of the educational testing service program of equivalency examinations and advanced placement. These exams, currently available--in particular, new examinations for the allied health professions--can help accelerate the formal academic programs of potential health workers.

Dr. Joseph Kadish of the Educational Program Development Branch, Department of Allied Health Manpower, Bureau of Health Professions Education and Manpower Training, Na-

Figure 5

Junior College	Cyto-Technology	Inhalation Therapy	Nursing	Radiologic Technology	Medical Secretarial Studies	Medical Records Technician*
Bio. 111 (Human Organism)	x	x	-	x	x	x
Bio. 112	x	x	-	x	x	x
Eng. 101	x	x	x	x	x	x
Eng. 102	x	x	x	x	x	x
Math	x	x	-	x	-	-
Math	x	x	-	x	-	-
Health Care Systems 100	x	-	-	x	-	-
Patient Care 100	x	-	-	x	-	-

*To begin Fall 1971.

Figure 6

Junior College	Biology	Laboratory Animal Technology	Chemistry	Clinical Chemistry	Medical Technology	Clinical Micro-biology	Occupa-tional Therapy	Physi-cal Therapy	Environmen-tal Health Technology[6]
Bio. 101	x	x	x	x	x	x	x	x	x
Bio. 102	x	x	x	x	x	x	x	x	x
Chem. 101	x	x	x	x	x	x	x	x	x
Chem. 102	x	x	x	x	x	x	x	x	x
Eng. 101	x	x	x	x	x	x	x	x	x
Eng. 102	x	x	x	x	x	x	x	x	x
Math	x	x	x	x	x	x	x	x	x
Math	x	x	x	x	x	x	x	x	x
L.A.E.[1]	x	x	x	x	HCS[2]	x	Psych.	Psych.	x
L.A.E.	x	x	x	x	PC[3]	x	Psych.	Psych.	x
Chem. 201	x	x	x	x	x	x	-	-	x
Chem. 202	x	x	x	x	Bio.Chem.	x	-	-	x
Physics	x	x	x	x	x	x	x	x	x
Physics	x	x	x	x	Instr.Analy.	x	x	x	x
Bio. Elective	x	x	Sci	Sci-Bio	x Req.	A&P[4]	A&P	A&P	x
Bio. Elective	x	x	Sci	Sci	x Req.	A&P	A&P	A&P	x
L.A.E.	x	x	x	x	x	x	Soc.	Soc.	x
L.A.E.	x	x Dev.Bio.	x	x	x	x	Psych. Dev.Bio.[5]	Psych. Dev.Bio.[5]	x

[1]L.A.E. = Liberal Arts Elective.
[2]H.C.S. = Health Care Seminar.
[3]P.C. = Patient Care.
[4]A&P = Anatomy & Physiology
[5]O.T., P.T. joint orientation seminar year 1 and 2.
[6]To begin September 1971.

Sci = Science Elective.
Bio = Biology Elective.
Bio.Chem. = Biochemistry.
Instr.Analy. = Instrumental Quantitative Analysis.

tional Institutes of Health has stated: " (1) students should not be required to repeat work that they have mastered, (2) objectives of course work can be achieved in other than classroom situations, (3) acquisition of knowledge and skills can be measured by examination and performance, and (4) educational institutions can use the results of these examinations as a basis for placement or academic credit awards." 3

It is a fortunate experience for yours truly to be currently involved in the first National Institutes of Health contract with Educational Testing Service, College Board Division, as Chairman of the Committee for the Clinical Chemistry Equivalency Test series in the medical laboratory field. If we succeed, other occupations, nursing included, should develop similar equivalency and proficiency examinations to give recognition for past training and experience. Each individual ought to have the opportunity for maximum intellectual growth without being stunted by rigid pedagogic dogma!

References

1. L.M. Thompson and others. A Study of University Programs for Health-Related Professions. Boston, Northeastern University, 1970.

2. Stanley Katz and John McGavack. Towards a National Priority--A Health Manpower Educational Strategy for the 70's. Hamden and New Haven, Conn., Quinnipiac College and New Haven Public Schools, 1970.

3. Joseph Kadish. Regional Allied Health Conference and Workshop. Pocatello, Idaho, Idaho State University, 1970.

THE DEVELOPMENT OF HEALTH CORE AREAS--
REACTION TO THE PRESENTATIONS

Sister Anne Joachim Moore

The titles of the three papers presented refer to the "concept" of health core areas. Without defining "core," the content of the papers points to several quite different interpretations. I suggest the following definitions of "core," on which I will base my remarks:

1. The pith, heart of the matter.
2. The central part of anything, as being enveloped by parts of a different character.
3. The central strand around which others are twisted, as in some kinds of rope.
4. A mass of iron serving to concentrate and intensify the magnetic field resulting from a current in the coil.
5. An arrangement of a course of studies that combines under certain basic topics material from subjects conventionally separated and aims to provide a common background for all students.

This centrality, this essential, life-giving character of the term "core" suggests to me that what may be needed is rigorous analysis of each health program or area, a stripping away of accretions of the outer, more visible layers in order to locate or define the core. These definitions serve as framework for my thinking, when I hear Dr. Duggins refer to the Kellogg Community College and its core-cluster approach, that this combined term "core-cluster," implies that there are areas of health specialties within the cluster that become differentiated as they develop from a common central, life-giving, identifiable core. Then, however, Dr. Duggins, unfortunately to my thinking, says the core-cluster is for the purpose of sampling programs.

Mr. Katz's early reference to one of the N.E. University criteria was great, I thought. This one: "basic knowledge which will enable students to keep up to date and professionally competent in health fields, even though current skills and techniques become obsolete." A clear identification and firm grasp by the teacher of the common origin, the life-giving core of the cluster, have powerful potential for fostering sound program development of the specialty within the cluster. In operation as a secondary effect there may be a period of time for student exploration and choice of specialty. The probability is that such choice will be considerably more informed than it would be without study of the core area.

Miss Drage's faculty identified "common elements" in the three levels of programs. A student coming into the program beyond the nursing assistant level is relieved of unnecessary repetition by being excused from the laboratory but is required to attend the lectures. I would expect just the reverse. The lecture, useful for transmission of factual materials, lends itself particularly to exemption through paper-and-pencil or other class-

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room testing. "Independence," Miss Drage declares, "which comes from a multiplicity of learning experiences, enabled the second-year student to assess, make judgments, and act in a progressively independent manner." It was in this area that differences were noted. It is my opinion that what she calls "basic nursing skills" are common elementary tasks but that they hardly qualify as "basic nursing." The assessing and the judging, I should think, are the crucial nursing skills for which the clinical laboratory setting is essential--to evaluate as well as to teach. I would further look for independence to come from some rather special kinds of experience. Significant factors in these experiences would include building of new experiences upon previous experiences and increasing expectations of more independent and more responsible behavior because of new insights, grasp of new relationships, and active reorganizing of his knowledge.

Dr. Duggins not only speaks of the core-cluster as providing for sampling of programs but also refers to his "Survey of Allied Health" for all the allied health students in order to help them make career choices. Mr. Katz makes note of an OT-PT Joint Orientation Seminar to facilitate switching of majors. These strike me as perhaps good counseling ideas. If their purpose is to facilitate switching of program registration, it's an odd expenditure of time, money, and college credit on the part of the majority of students to accommodate a few.

I am extremely interested in the few being accommodated--do not misunderstand me--but not by the rest of the students! I would argue to change the system. The system should accommodate--it is for the student, not the student for the system. The system change that is needed is that which Mr. Katz barely alludes to at the conclusion of his paper--namely, Dr. Kadish's suggestion of evaluation of prior learning. This is a difficult task requiring great skill, serious study, and much hard work.

I do know of some junior college and baccalaureate programs that simply give the final exams they have prepared for their enrolled students as challenge exams to those asking for advance standing. As I understand it--and I have not studied the situation in any comprehensive way--it looks to me like a cop-out. Practically no one successfully passes any great number of courses this way, and the faculty claims that it offers challenge exams.

More and more it seems to me that the problem is the system, and with our "student-fault" approach, we prevent ourselves from seeing the possibility of the problem's being "system-fault."

Dr. Duggins makes reference to a programmed materials learning laboratory as core curriculum. A very useful core of resources, perhaps, but resources to remedy student deficiencies before attempting the health program.

Miss Drage urges that "we must be willing to disenthrall ourselves from the past and optimistically endeavor to create innovative patterns of education." Patterns, even innovative ones, suggest molds. Patterns set limits to our thinking and, indeed, presently are part of our difficulty in looking at and planning for the future. Alvin Toffler, in Future Shock, makes a great issue of individualization of all experiences. Miss Drage's 50 advisory committees made up of "people functioning in the realities of the world of work" who represent "the pulse of nursing" and who "interpret to us the need for new programs and for expansion and changes in existing programs" would cause me great concern as a powerful force to maintain the status quo and the answers to yesterday's problems. I am not opposed to advisory committees. Their significant role can be to aid in determining for sure what the status quo is and, insofar as possible, anticipate transition problems for the new graduate, help to solve them, and suggest ways in which the graduate may make this transition an experience that fosters his development.

An advisory committee whose members include researchers and experimenters in the field would perhaps play a useful role in determining changes to be made in the educational program. I am afraid that determination of such changes by practitioners inevitably means that the problem and the solution have changed by the time the student graduates.

A common practice of long standing is to assemble several separate general education courses and require them of all health-related programs and to label that arrangement a core curriculum. Dr. Duggins calls it core, but shortly he more rightly refers to it as procedure. It may be common to all those students required to take the entire lot; it may save money (which I doubt); and it may help scheduling; but it does not, in my opinion, qualify as core or as health area or as rational educational practice. Nor, furthermore, does it serve the cause of flexibility. Quite the contrary; it makes rigid. While it ostensibly is to meet the need of the (occasional) student in his mobility, vertical or horizontal, the effect is to immobilize the great majority. It forces all into the same mold on the chance that a few may want out. When these general education courses are "specially designed" for the health specialty, the arrangement locks the student in vertically as well as horizontally and compounds that awful problem of credit transfer for the student who comes as well as the one who goes from college to college. In most instances with which I am acquainted, it is an arbitrary requirement that ignores the individual student--especially the disadvantaged, the high-risk. I know of few health programs on the technical, the junior college, level who have analyzed their specialty (beyond job analysis, which tells only the status quo) in order to determine what content and experiences are truly essential to prepare the worker and then in turn have validated their offerings. There are an equally spare number who have analyzed their program offerings rigorously to determine precisely on what natural and social science principles or concepts they are building and to examine equally closely those courses declared "required" in order to determine if they do, in fact, teach that on which the program builds. Practically all of us accept transfer credit simply on course title or, at most, a topic outline. It may seem logical, and it may seem obvious, to say that every one of the technicians in my field (whatever it is) needs the English courses, but precisely determining which students are actually in need of what understandings and skills is much less obvious, much less frequently done, and certainly much more difficult.

I will suggest that were such analysis done, the number of prerequisite courses as well as concurrent requirements would be greatly reduced. Such reduction would free a student's time and energy for studies and activities that are more individually suited to foster his growth as a person, which in the long haul has more likelihood of making him a better technician.

In these papers the suggestion is strong that somehow the literally interpreted ladder and core concepts are similar or even reciprocal in their development.

The error in the strict ladder approach to curriculum building, it seems to me, is that of oversimplification. While only a few may envision the ladder as extending from the nurse's aide to the surgeon (lord of lords!), many more see it as at least extending from the aide to the registered nurse. The registered nurse category somehow extends from the AD graduate through the postdoctoral clinical specialist. It is as though the whole were always simply the sum of its parts. I protest that we must keep clear our realization that everything on a higher level is not explained by everything on the lower levels. On the new level (if it truly is a new level) there is new knowledge as well as new organization of old knowledge. With this new organization come new relationships,

new insights, and, significantly, new responsibilities. It is a new type of synthesis, a new composition. It is something new! It is not merely more of the same. When the nurse's aide is seen as the basic health worker category, as this ladder view implies, it implies, then, that she is basic and central to health care. And this is wrong. She may be important, perhaps, but important in a fringe way.

In the olden days, when the nurse was the handmaid of the physician, she also did lots of other things that have since become very high-class specialties in their own right. She was working 12- and 17-hour days, and maybe one of the reasons was that in the midst of all the other things she was doing she was also, through it all, nursing. I contend that putting together the nurse's aide and the lab technician and the dietitian and the physical therapist and the occupational therapist and the pharmacist and the x-ray technician and the ward clerk and the unit manager doesn't equal a nurse. The nurse used to do all those things, and in addition, she nursed. Which is to say, when you reduce the nurse to her simplest and most elementary level, you do not come out with a nurse's aide. If you do, I question your analysis far more readily and gravely than I question the essence of nursing.

In all of the proposals I detect a suggestion that I used to hear in talk about team teaching. We'll have the best of two worlds; only the most expert will teach in his area of expertise, and this will be so efficient that we will spend less money, besides.

I have great respect for team teaching in those instances where I have seen an improvement in teaching and learning as a result, but the fact is it costs more. If it were managed so that it cost less, it appears to me, we would be left with its weaknesses and lose its strengths. Don't get fooled on how to save educational money by tinkering around with movable parts. The system has to change even if it is disturbing to registrars, to those colleges to which students transfer, and to teachers who cannot really believe that failure of a student to learn may indeed be the teacher's failure to see anything but student-fault.

Mr. Katz spends some time on the New Haven area high school plan. A couple of things in this plan concern me. Surely, broad knowledge of the options open to each student is unqualifiedly desirable. But the designing of a course to accommodate the mentally retarded, the low-socioeconomic student, the low achievers, and the delinquent and then later viewing this course as basic for the building of health careers and furthermore, declaring it all to serve the cause of relevance, gives one serious pause.

Learning difficulties such as this student population must have might be a rich ground for studying learning. But are the learning difficulties of these very different categories of students really the same? I cannot believe it. Unless, perhaps, the course is individualized for each student as he enters. An enormous diagnostic and planning staff would then be a feature of this high school. I hope it is so.

This early forcing of declaration of interest in health careers, perhaps intended to focus and energize attention, will simply move the "locking-in" up to an even more damaging point in the student's life. The causes of relevent curriculum and recruiting of health workers, it seems to me, might be far better served by the interesting and exciting teaching of biology. The disadvantaged student whose individual learning problems have been dealt with and who willingly, maybe joyfully, has learned some biology will be a better candidate for a health career, because with a firmer grasp and fuller understanding he will be freer--freer to choose a health career, on whatever level.

MEASURING OUR PROGRESS TOWARD OUR GOALS

Elsa L. Brown

At its March, 1970, conference, in Honolulu, Hawaii, the Council of Associate Degree Programs set short- and long-term goals that it "could evaluate and reassess a year from today in Washington, D.C."

The short-term goals stated were to:

1. Obtain 75 percent of the active programs as member agencies of the Council.
2. Increase the number of accredited programs to approximately 140, thus reaching a strength of 40 percent in the accredited group.
3. Revise the criteria, including guidelines for the evaluation of programs leading to an associate degree.
4. Review the purposes of the Council in order that the Council would continue to represent the organized voice of the ADN movement in the United States.

What is the assessment of these goals on March 4, 1971?

1. Eighty-two percent of ADN programs are agency members if we use last year's program totals! We are involved in a dynamic, growing two-year college movement. For this past year, the unofficial number of new associate degree nursing programs is over 100. If we use this unofficial new total figure, the percentage of agency membership would drop to 60 percent. This is not bad at all! This year our Council became the second largest member agency group within NLN--shall we try for the number one position?
2. As a Council, you are to be congratulated for the thrust toward accreditation of programs. As of this coming June, 50 percent of the programs eligible for the accreditation process will undoubtedly have attained accreditation status.
3. Revision of the criteria was not accomplished this year. Various NLN departmental staffs involved in accreditation procedures are currently meeting to delineate commonalities of educational policy for the NLN accreditation process. At the last NLN Board meeting in February, the ADN Council chairman was assured that monies would be appropriated to begin the process of revision during this coming year.
4. The primary purpose of our Council was developed by "our founders" just five years ago. The Council's purpose "shall be the development and improvement of Associate Degree Programs in Nursing." This was reaffirmed by your elected

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Executive Committee. The purpose is and must remain broad and national in scope. Membership in the Council of Member Agencies is an in-depth process of both giving and getting. New programs, new faculty, new graduates, new students, new college deans and presidents need your expertise--your judgments, your experiences, your evaluations of this vital, rapidly growing nursing practice endeavor. It is a "getting" process, too, as your voice is the voice of associate degree nursing in the United States. The departmental staff and the Executive Committee appreciate the letters and phone calls that express the membership's many divergent points of view! As chairman, I make one plea today--please be objective in comparing the structure of our Council membership dues with those of AAJC and other organizations. Our Council and our Department are still youngsters in age compared to AAJC, which is in its 51st year of organization and has over 1,000 member agencies and a higher individual membership figure.

What assessment can be made of the long-term goals?

The first long-term goal referred to liaison work with the American Association of Junior Colleges. AAJC looks to this Council for ADN leadership! Plans were formulated in August, 1970, for the first regional faculty workshop. This will be held in Atlanta, Georgia, the Southern Accrediting Region, June 7-9, 1971. This workshop is also open to "new faculty" teaching in other paramedical fields. If it is successful, as we anticipate, the pattern will be used in subsequent regional workshops.

Also, at the last AAJC-ADN Liaison Committee meeting, a sequence of topics was selected for the annual joint sessions. The first topic, "Development of Health Core Areas," was presented yesterday afternoon. Again, our joint session had an overflow audience.

Support of the concept of open curriculum--the second long-term goal--continues. As a result of action by the NLN Board of Directors, a national research project under the direction of Dr. Walter Johnson, director of the NLN Department of Research, is now under way.

NLN's Measurement and Evaluation Services, under the direction of Dr. Mildred Katzell, is studying the development of basic validation exams that could be used by associate degree programs desirous of implementing a validating process.

The Council membership has been notified of the positive position taken by the NLN Board in September, 1970, in relation to the status of the ADN graduate and the Military Nursing Services. Statements from the respective Chiefs of the Army and Navy Nursing Services have been distributed to all registrants at this business session.

For the forthcoming biennium, support of the junior/community college concept in nursing will again be a high priority. The challenges to our Council membership will be greater involvement on the constituent and regional levels--with peer groups, other allied health workers, and community citizens.

Our Council session today has a long agenda. It will call for the objective deliberations of the membership. Therefore, I take this opportunity to thank the Council for a most challenging and enjoyable experience as chairman. Also, I wish to express my sincere appreciation to the Executive Committee, to the general director, Margaret Walsh, and to Gerry Griffin and the departmental staff for their tremendous support.

In conclusion, may I request recognition of the departmental staff and the Executive Committee.

THE PROGRAM AND THE DIRECTION OF THE NATIONAL STUDENT NURSES' ASSOCIATION

Mary Ann Tuft

In 1969, the National Student Nurses' Association (NSNA) went on record as supporting the Student Nurses' Association of Florida, a constituent organization, in its attempt to acquire for junior college programs in Florida the freedom to apply for National League for Nursing accreditation. This was at a time when all programs in nursing education, with the exception of AD programs in Florida, had the right to apply for national accreditation.

Last year, the NSNA came out in full support of legislation that would permit the commissioning of associate degree graduates in the United States Armed Forces. The members resolved in convention to actively discourage recruitment programs of the United States Armed Forces at conventions until such legislation is enacted. During the past year, along with medical, pharmaceutical, and dental students, nursing students testified in favor of increased appropriations for health science students. They have also supported the National Health Service Corps Bill.

These are only a few examples of how the programs and projects of the National Student Nurses' Association are directed toward improving the health care of all people and of how they serve as a voice for all nursing students. As future professionals, the many thousands of members of NSNA are trying to recognize and accept their responsibility to the consumers of health care and to work toward the restructuring of the health care system so that it will better meet the needs of the sick poor. They are developing a number of programs toward this end. In the past, some students in associate degree programs (and in other programs as well) have indicated that they have not been encouraged to join the NSNA. In appearing before you today, I do not intend either to justify the organization or to defend it; rather, I would like to tell you about some of the things NSNA members are doing and talking about at the present time. Many are no longer concerned with Amateur Night or Uniform Day. Instead, they are committed to a strong interdisciplinary approach to health care delivery and are seriously concerned with community problems. These nursing students are expressing a very real need for experiences that go beyond their formal education--a need to participate productively in communities, workshops, interdisciplinary student health projects, and independent studies with other students.

Nursing students, recognizing that members of the health professions can no longer operate in a vacuum, have committed themselves to doing their part in making the health-team approach a reality through their participation in interdisciplinary projects. I would like to give you a few examples of some of the projects NSNA members are involved in--together with medical, dental, and pharmaceutical students.

Appalachian Rural Health Project.--Fifty-eight nursing students spent the summer in various rural communities living with the people and working with physicians and

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nurses in the communities and in a variety of agencies. They gained invaluable insights into the many health problems and social deprivations of the rural poor.

Indian Health Project.--Seven nursing students worked with Indian Community Agencies in a combined service-education project. They developed an understanding of the cultural and geographic factors that so definitely affect the delivery of health care to American Indians.

Job Corps Programs.--Nursing students worked in various Job Corps training centers across the United States, learning about the underlying problems inherent in poverty and seeing, firsthand, the particular problems of disadvantaged adolescents. They became cognizant of the systems designed to help and participated in the development of preventive mental health programs in an interdisciplinary experience.

Head Start Project.--Twenty-eight sites have recently been ch sen for student involvement. An NSNA member has just been appointed national chairm n of the Head Start program involving health science students. This is the first progran. in which nursing has taken leadership.

As consumers of education, the students believe in their right as individuals to participate in the planning of their own curriculums and in meeting the health needs of the community. They firmly believe that experiences in community health projects should be made a vital part of nursing curriculums. To implement this belief, NSNA members are beginning to work with deans and directors of schools of nursing because some project participants do not get community health experience in their nursing programs.

I do not believe anyone would argue with the point that there is a definite shortage of manpower. NSNA members have ongoing recruitment programs in their state and local associations. In their role as nursing students, they recognize that they have a potential for assisting in the recruitment of black, Spanish-speaking, and Indian Americans into nursing. During the past five years, NSNA has sponsored a national recruitment project, "Breakthrough to Nursing." In this project, nursing students provide prospective recruits with tutorial help, seek financial assistance and scholarships, and give personal support to nursing candidates. At this moment, NSNA is very hopeful it will receive a substantial grant to implement the Breakthrough project further.

In the recruitment of nursing students, one of the major roadblocks is a lack of loans and scholarships. As I mentioned earlier, NSNA testified for the first time last year with other student health professionals--for full funding of Title II of the Health Manpower Bill. Another roadblock in the attempt to improve and maintain nursing manpower is the lack of career mobility. NSNA supports the development and use of challenge examinations by institutions of higher education to facilitate continuing education in nursing.

Our board of directors and our consultants believe that membership in NSNA gives nursing students the opportunity to be involved with other organizations. NSNA representatives sit as voting members on an Interdisciplinary National Committee on Community Health and participate in student interdisciplinary symposiums sponsored by SAPHA. One state student organization has just received a grant of $1,000 for a state interdisciplinary project. Three representatives participated in the White House Conference on Children; the NSNA president has been appointed to the Advisory Council for National Urban Coalition and also met recently with HEW Secretary Elliott Richardson to discuss various student projects.

An important side benefit of belonging to NSNA is receiving the organization's maga-

zine Imprint. Imprint is the only national magazine produced by and for nursing students. It provides an important avenue of communication among nursing students and between nursing students and their colleagues in other health disciplines. For the past year, the content in Imprint has been concerned mostly with reports of various student projects and with educative articles on the community problems students are so concerned with today. Plans are under way to enlarge the magazine considerably by September, 1971. Some of the best material written by nursing students has come from associate degree students--both in Imprint and other nursing journals. I hope all of you are subscribers!

The joint program meetings to take place at the 1971 NLN-NSNA conventions should provide a very special opportunity for nursing students and leaders in nursing education and service to discuss together some of the problems that face the nursing profession.

As schools of nursing change, the membership of NSNA changes. The direction of the organization changes, too--toward areas of greater interest to students at the college and the university level.

There is something about AD students. Many of them are more mature than students in other programs and therefore more strongly motivated. Their maturity and background often give them an unusually keen perception of societal problems and the need for better health care and facilities. They would be valuable to NSNA as members and, in turn, they would have opportunities to further some of their ideas for improvement of the health care system in this country--or, as some people have so aptly put it--the nonsystem of health care. The board of directors and their consultants from NLN and ANA most anxiously seek your support in their efforts to recruit more associate degree students.

THE UTILIZATION OF THE REGISTERED NURSE GRADUATE OF AN ASSOCIATE DEGREE PROGRAM IN NURSING IN THE UNITED STATES ARMY MEDICAL DEPARTMENT

Brigadier General Anna Mae Hays

The utilization of a registered nurse as a member of the Army Medical Department team, either as a Department of the Army civilian employee or a military officer, is governed by law or Department of the Army policy.

The United States Civil Service Commission, on the basis of a statute that gives it that authority, authorizes the utilization in Federal agencies of graduates from all basic programs in nursing.

The commissioning criteria for an Army Nurse Corps officer in the Regular Army are established by law. A nurse who desires to be a commissioned officer in the Army Nurse Corps in the United States Army Reserve must meet the basic criteria of a Regular Army appointment. This individual " . . . must be a graduate of a university program in nursing or a hospital school of nursing."

Department of Army regulations specify that the minimum academic preparation desired for all officers of the United States Army is the baccalaureate degree. Over 90 percent of Regular Army officers and over 70 percent of all officers in the United States Army are prepared at this level. An exception has been made through the years for Army Nurse Corps officers, since the basic educational program that prepared most practitioners of nursing has been the hospital school of nursing program. It is now imperative that the Army Nurse Corps adhere to the established educational criterion for all officers in the United States Army and that the exception be minimally applied in the future.

The primary reason for this change is that the American soldier, who risks his life in our nation's defense, and his retired colleague, who has already done so, should continue to receive the highest quality of nursing care. This responsibility must rest with the officer educated for the professional practice of nursing.

Secondly, the role of the Army nurse as a leader of the nursing team and an officer of the Army Medical Department must be considered. The worldwide Army nursing team numbers in excess of 21,000 persons. It comprises nearly 4,800 Army Nurse Corps officers; 2,300 civilian registered nurses; over 11,000 enlisted men and women, including 3,000 licensed practical nurses; and some 3,000 civilian licensed practical nurses and nursing assistants. The Army nurse is an officer. His or her role is, and always has been, synonymous with responsibility: responsibility for leadership, for quality of nursing care, for teaching in nursing, for nursing research, and for the management of the nursing process and nursing personnel.

To complicate these responsibilities, the membership of the Army's nursing team continuously changes. The enlisted men and women, after eight weeks of basic combat training and ten weeks of medical training, serve for only two years and are periodically moved as required. Thus, Army nurses are continuously faced with an influx of inex-

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perienced personnel who require maximum supervision and further education. Further, most Army Nurse Corps officers serve on active duty for only two to three years and are similarly subject to change in geographic location.

In oversea areas, where one-third of the Army Nurse Corps officers serve, their responsibilities take on greater dimension while a lesser degree of assistance and guidance is available to them. For example, Army nurses supervise the nursing activities of several hundred foreign national employees whose education and clinical experiences vary in quality and quantity. This is often further complicated by a language barrier. Army Nurse Corps officers, with other health care professionals of the Army Medical Department team, are also often involved in civil assistance and health teaching programs for foreign populations and in military medical training of Allied Forces.

The few military and professional nursing requirements described amply support the Army's position that the minimal basic education for the Army nurse should be the baccalaureate degree.

The Army Nurse Corps is making substantial progress toward achieving that educational goal in that 42 percent of all Army Nurse Corps officers are prepared at least at the baccalaureate degree level, compared with 21 percent in 1968. A major factor in this increase is that most newly commissioned nurse officers had been participants in one of the Army's educational subsidy programs. In September of 1970, 70 percent of the 900 new participants enrolled in programs leading to a baccalaureate degree. In September of 1968, it was 50 percent. The number of Army Nurse Corps officers prepared for the professional practice of nursing should rapidly rise as these students are graduated and enter service on active duty. Additionally, those Army Nurse Corps officers serving on active duty who do not hold a baccalaureate degree are strongly encouraged to attain it. Under Army auspices, 120 nurse officers are currently studying full time and hundreds are participating on a part-time basis.

The specific desirability of this academic preparation for the Army Nurse Corps officer was most recently recognized by the Board of Directors of the National League for Nursing in its letter of September 29, 1970, to the Assistant Secretary of Defense for Health and Environment, the Honorable Louis M. Rousselot, M.D., and to the chief nurses of the military nursing services. The Board, however, stated in its letter that " . . . the number of baccalaureate graduates each year is insufficient . . . that as a result graduates of diploma programs are recruited to meet the nurse manpower need of the Armed Services . . . that the present recruitment policies of the Department of Defense limit opportunities for graduates of associate degree programs in nursing."

In February of 1971, the Department of the Army afforded an opportunity for the graduate of an associate degree program in nursing to become a fully qualified commissioned officer through participation in the Registered Nurse Student Program. This Program was revised to permit graduates of both the associate degree program in nursing and the hospital school of nursing to be commissioned as an Army Nurse Corps officer for the purpose of obtaining a baccalaureate degree in nursing. Upon successful completion, the officer serves on active duty for an initial period of two or three years, depending upon the length of subsidy. He competes with his peers for career status.

Presently, those Department of the Army nurse positions that require the incumbent to hold a baccalaureate degree and those staff nurse positions that must be utilized to provide clinical experiences for the recently graduated professional practitioner are filled primarily by Army Nurse Corps officers. The remaining staff nurse positions, which will decrease in number as the total strength of the Army is reduced, are filled

primarily by civilian nurses. Most of these civilians do not hold a baccalaureate degree and are selected for employment on a best-qualified basis from among applicants who are graduates of all basic programs in nursing.

In the foreseeable future, an Army Nurse Corps is envisioned with its officer positions filled by individuals prepared at least at the baccalaureate degree level. If, at that time, the number of unoccupied nurse officer positions is substantial, graduates of the associate degree program in nursing and of the hospital school of nursing will undoubtedly compete for these positions. In this circumstance, appropriate constraints may be placed on promotion and career opportunities for these individuals until they are prepared at the baccalaureate degree level.

In the meantime, the graduate of an associate degree program in nursing will continue to be eligible for (1) employment as a civilian by the Department of the Army and (2) participation in the Registered Nurse Student Program as a commissioned officer.

/Editor's note: It will be of interest to readers to know that on June 2, 1971, the following news release regarding a change in ANC requirements was issued by the Office of the Surgeon General, U.S. Army Technical Liaison Office:

"The Department of the Army has announced changes in the educational and professional requirements for registered nurse applicants seeking appointment as commissioned officers of the Army Nurse Corps in the U.S. Army Reserve or in the Regular Army. These changes, effective 1 July 1971, permit qualified registered nurse graduates of educational programs in nursing, including the associate degree program in nursing, which are nationally accredited by an agency recognized by the United States Commissioner on Education and acceptable to the Department of the Army, to apply for appointment. Priority of selection will be given to the individuals possessing a baccalaureate degree. These nurses will be initially commissioned as first lieutenants, while those graduated from a hospital school of nursing or an associate degree program and who do not possess a baccalaureate degree will be initially commissioned as second lieutenants.

"Simultaneously, constraints have been placed on those commissioned officers who wish to extend active duty beyond their initial tour of two or three years. The highly qualified officer who does not possess a baccalaureate degree and who desires to become a career officer will be required to demonstrate progress toward acquiring that degree prior to appointment to Regular Army or to voluntary indefinite status."/

STATUS OF THE ADN GRADUATE IN THE UNITED STATES NAVY NURSE CORPS

Captain Alene B. Duerk

Dr. Mildred Montag, who directed the research project that resulted in the development of the associate degree nursing program, stated that "The premise on which the need for technical education in nursing rests is that nursing is an occupation with a professional and technical component."[1] The associate degree nursing program was established to provide education in the technical component of nursing, and the National League for Nursing specifically defines the associate degree graduate as a technical nurse. There is no doubt that AD graduates function well at their level of preparation. However, in the Navy Medical Department, the technical nurse position is filled by hospital corpsmen.

It has also been said that "The level and scope of nursing practice will not exceed the kind and amount of education that precedes it."[2] Navy Nurse Corps officers must assume charge nurse duties and responsibilities after only a brief orientation to the Navy Medical Department. These duties are comparable to those of a head nurse in the civilian hospital community. Charge nurse duties encompass 24-hour patient care and include responsibility for planning, initiating, supervising, and evaluating all aspects of nursing care for seriously ill patients and the management and organization of wards with large numbers of ambulatory patients. The charge nurse is responsible for the supervision of paramedical personnel and also for their clinical education and training. This level and scope of nursing practice exceeds that for which the technical nurse is educationally prepared.

There is a shortage of nurses in the Navy, but the demand is for experienced, professional nurses. For this reason the Navy has, for several years, offered the technical nurse an opportunity for further education at the professional level. The Navy Nurse Corps Candidate Program will subsidize the associate degree nurse for up to two years while he or she is working toward a baccalaureate degree in nursing. The subsidy includes pay, housing and food allowances, books, and full tuition and fees. The student is commissioned six months prior to graduation, and upon successful completion of degree requirements, the officer serves on active duty for either two or three years, depending upon the length of subsidy. The officer is then professionally prepared to move up the promotion and career ladder in competition with his or her peers.

Historically, the highest level of basic nursing education was the three-year hospital school of nursing. Therefore, when commissioning criteria were originally established, the minimum educational requirement was set at three years. The baccalaureate graduate exceeds the minimum requirement. To decrease the educational criteria would jeopardize promotion and augmentation privileges and might well adversely affect the nurse officer corps status. The Chief of Naval Operations has a stated goal of providing

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AD education for all petty officers (enlisted E-5 through E-9). Steps towards meeting this goal have already been taken. The ADCOP (Associate Degree Completion Program) was established three years ago and will graduate 80 hospital corpsmen and dental technicians this spring. None of the ADCOP graduates will be commissioned. If the associate degree graduate nurse were commissioned, it would cause a dichotomous situation: enlisted and officer personnel working side by side, each with identical educational preparation, one granted a commission, the other required to retain his enlisted status.

The Navy is working toward an all-baccalaureate-degree Nurse Corps. There has been significant progress in reaching that goal, and today a large percentage of Navy nurses hold a baccalaureate or higher degree.

For all of these reasons, the Navy Nurse Corps does not grant commissions to graduates of associate degree nursing programs.

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ACCREDITATION--WHAT ABOUT THE PUBLIC?

Frank G. Dickey

Both educators and the general public are asking more and more questions about accreditation. It would be delightful if we could respond to these questions about accrediting as did Fats Waller when he was asked by a dowager for a definition of jazz. He said quite bluntly, "Lady, if you have to ask what it is, don't mess with it." Unfortunately, we can't respond in that way, and quite frankly, we need to do more "responding" instead of "turning them off" with some phrase such as "It's so complicated that we just can't explain it to the noneducator."

The currents and uncertainties of postsecondary education have great pertinence to voluntary accreditation and to the role of the Council of Associate Degree Programs of the National League for Nursing. Accreditation, it is generally presumed, has been providing a measure of accountability for a number of years. Accrediting agencies have said a great deal about the quality of educational opportunity, and it has been generally assumed by educators and the public that quality educational opportunities most often result in quality educational products. Such broad assumptions are, of course, open to challenge, and it is on this point that accrediting agencies must show their accountability to the public.

In speaking at a meeting about a year ago, Max Lerner, Professor of American Civilization and Institutions at Brandeis University, made a very provocative statement: "As I have traveled around the world a bit, I have found some of my friends saying to me, 'Mr. Lerner, this reactionary America of yours,' and I say, 'Wait a minute--if you mean you don't like some of the decisions of our leaders, that's your privilege. . . . But if you mean that America is itself a reactionary society, then watch out. It isn't so. It's probably the most revolutionary society in the world today.'"

Mr. Lerner then went on to point out that there are two basic meanings of the word revolution. One is the classical historical meaning--overthrowing the regime. The other is much more important--a greatly accelerated rate of change inside the society. And it is in the second sense that Lerner describes America as being revolutionary.

I think that you will agree that America is going through a period of revolutionary change. Peter Drucker calls it The Age of Discontinuity. Allan Toffler, in his recent book, Future Shock, goes so far as to say that we are creating a new society, not a changed society. He holds that our schools must teach a type of "social futurism" if we are to prepare the next generation for the problems that they must face.

Education is already undergoing some revolutionary changes--in governance, in clientele, in curricula, in objectives, in its relations with the rest of society. It is difficult to predict just where it will all come out; we just know that it will never be the same again.

All of these changes are difficult for us to understand, and they are particularly difficult for the public to comprehend. In a sense, we have always felt some responsibility

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for the product of our educational programs, but the current emphasis upon "accountability" focuses much more attention on what we are getting from our programs. Only in rather recent years have the state legislatures, the federal government, the foundations, and the general public started to ask, "What are we getting from education for the dollars we are spending? What is the cost-benefit relationship of one type of program to another (let us say the associate degree nursing program as compared with the diploma program)?"

The newly appointed Commissioner of Education of the United States, Sidney P. Marland, said recently: "We must invent new ways of accounting for our effectiveness. And if we cannot account for our effectiveness, we should get out of the way. This applies particularly to school leaders at all levels. We are engaged in a totally new perception of education in our cities. Whereas a very few years ago the schools were charged with providing equal education opportunity, they are now charged with providing equal education. This is quite different. The ball was in the other court when, given the opportunity, the student succeeded or failed, and good riddance to the dropout. The sudden new demand for equal education as distinct from equal opportunity has quietly sprung, full-blown, as a new, raw, and untested philosophy."

What does all of the new emphasis on accountability have to do with the process of accreditation and, more particularly, with the National League for Nursing? Essentially, the accrediting agencies are going to have to be able to answer questions about the relevancy of their standards, or criteria, used in evaluating the programs. Many of the so-called criteria now utilized tend to focus on some of the environmental conditions that appear to have little influence on the cognitive development of our students.

If the public is to be well served, we must give more attention in our accrediting criteria to the product of our programs than to the process or the appurtenances. Do we really know that having a certain percentage of persons with master's degrees or with doctor's degrees on a faculty produces better instruction and thereby better nurses? Do we know for certain that such factors as selectivity of the student body, high expenditures per student, and so forth, have a measurable effect on student achievement?

Perhaps I am, in a sense, talking to the wrong audience today, for the associate degree nursing program has been a very real part of the revolution in education about which we are talking. You have managed to combine theory and practice in a very meaningful way. Your accrediting standards do give attention to the public service rendered by the product of your programs. And yet, we have not done the entire job by any means. The public still feels that it is ignored, and it also feels that it is not necessarily getting full value for the dollars expended on the various educational programs.

John D. Millett, chancellor of the Ohio Board of Regents, said recently: "The accountability of higher education is simple to state: it is to contribute to the general welfare. Large segments of the whole population, not just the young, must be convinced of that contribution. Furthermore, it must be widely believed that these contributions, however defined and articulated, do in fact enhance the general welfare of all society. If these contributions come to be doubted, and if the general welfare is negated rather than advanced by our institutions of higher learning, then public accountability by higher education will have been lost."

In concluding, let me ask that we all be mindful of Sir Eric Ashby's words, which apply so well to accrediting agencies and their relationships to the public interest. Sir Eric Ashby says that an organization is the embodiment of an ideal and to survive, it

must fulfill two conditions: It must be sufficiently stable to sustain the ideal that gave it birth, and sufficiently responsive to remain relevant to the society that supports it. My fear is that we score high on the matter of stability but that we may be near failing on the second criterion. Now that we have such a wonderful start in the accreditation of associate degree nursing programs, my plea is that we not forget the public that supports the programs and the public that is the user of the products of our programs. As Ralph Waldo Emerson wrote: "This time, like all times, is a very good one, if we but know what to do with it."

THE ADN PROGRAM AND ITS PRESENT CONTRIBUTION TO THE COMMUNITY

Mildred L. Montag

The term community is so frequently and so loosely used in much of current discussion that it is difficult to know what is really meant by the term. Therefore, I went to the dictionary for a definition and guidance in my thinking about the topic under consideration. The Random House dictionary has two definitions that I shall use as framework for this paper.

The first definition of community is as follows:

> A social group of any size whose members reside in a specific locality, share government and have a common cultural and historical heritage.

The second definition is:

> A social group sharing common characteristics or interests and perceiving itself as distinct in some respect from the larger society within which it exists (usually preceded by the).

The latter would be illustrated by the nursing community. I propose to look at the contribution of the ADN program to each of these communities in turn.

Let me consider first the community in the sense of the first definition--a social group residing in a specific locality under a shared government. The programs for nursing technicians, now commonly known as associate degree nursing programs, were envisioned as being appropriate to the community colleges because in the early 1950's such colleges were beginning to proliferate as communities saw the desirability of extending educational opportunities to more of their citizens. The President's Commission on Higher Education highlighted both the need for and the purpose of community colleges.

> Whatever form the community college takes its purpose is educational service to the entire community, and this purpose requires of it a variety of functions and programs. It will provide college education for the youth of the community certainly, so as to remove geographic and economic barriers to educational opportunity and discover and develop individual talents at low cost and easy access.[1]

This institution was identified in Education for Nursing Technicians as "the logical place for the preparation of the nursing technician."[2] Because the community college serves its community by offering educational opportunity to its citizens and by offering curricula that prepare for those services needed by the community, nursing programs are seen as a "natural" for community colleges.

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Thus was the program for nursing technicians envisioned--to serve the individual and the community. What evidence do we have that these programs have made a contribution to the community? First, let me say I am considering the entire community and all individuals therein, not what is commonly considered the disadvantaged. The usual definition of the disadvantaged includes only the minority groups or those designated as poor. Whatever prevents an individual from achieving an education appropriate to his abilities and interests is disadvantageous to him and puts him in the disadvantaged group. Too narrow a view of the disadvantaged is as detrimental as to not consider the disadvantaged at all and may well distort and minimize efforts to provide appropriate opportunities for all. Some of the ways in which I believe the associate degree nursing program has contributed will not refer to those usually designated as disadvantaged.

In 20 years, nearly 500 associate degree programs have been developed. In some states they account for more than half of the students preparing for nursing. They are now providing more than 17 percent of the graduates of nursing programs. It can be anticipated that both the number of programs and the number of graduates will increase. If the recommendations made in the recent Carnegie study materialize and the number of community colleges increases to the number predicted, one can expect that a substantial number of these colleges will have nursing programs. But what of the students and the opportunities these programs offer?

The associate degree nursing programs began with no barriers to student admission with respect to age, sex, race, or marital status, for such barriers would have been inconsistent with the admission policies of community colleges. Open admission was also practiced in some colleges, although some nursing programs did impose academic or intellectual requirements for admission. Even where that was true, there was evidence that the academic requirements were less stringent than in many diploma programs. Some interesting results of these changes were evident in the findings of the Cooperative Research Project in Junior and Community College Education for Nursing. The age range of the students was from 16.7 years to over 59 years. Fourteen percent were over 26 years. Of those 26 years or older, 43 percent said they would not have selected nursing as an occupation had it not been for associate degree programs. Twelve percent of the students were married and of these, 40 percent would not otherwise have selected nursing. Three percent of the students were males, this being nearly three times the national average. Of these, 52 percent said they would not otherwise have entered nursing. I would remind you that in 1950, there were definite barriers to entering a nursing program in the areas of age, sex, and marital status. Records of race were not compiled, but all races were admitted. That the programs served the citizens of the community is evident in the fact that the permanent residences of 74 percent of the students were within a 25-mile radius of the college.

As might be expected, most of the graduates of the associate degree programs were found to be working in local hospitals. In the study just referred to, 43 percent of the hospitals in which the graduates of the pilot programs were employed were within 25 miles of the pilot programs and employed 74 percent of the graduates.

A more recent follow-up study of a sample of 4,345 graduates also offers interesting findings. They are similar in many ways to those just cited, but they offer more evidence to support the notions first tried out in the pilot programs. The age range remains wide--from 16 years to 64 years. Again, 25 percent were 26 years or older. This was an unexpected finding in the first study, and it is significant that the same situation con-

tinues. Five percent of the students were male, and these students varied widely in background and interests. Twenty-four percent of the students were married. The permanent residences of 65 percent of the students permitted them to live at home. More minority students were admitted than in the diploma or baccalaureate programs.

There has been much discussion relative to the attrition rates in associate degree nursing programs. It is hard to determine precisely, for students withdraw temporarily and return to eventually graduate. The Rowe and Flitter study concluded that "One sign of the appropriateness of the setting and appeal to aspirants of nursing is that fewer students fail to complete the 2-year nursing program than students in other programs in junior or community colleges."[3]

The choice of the associate degree nursing program by students was again influenced by age, sex, and marital status. The reasons most commonly cited for choosing this type of program were the location of the program and the opportunity to live at home. The cost of the program, or more correctly, the minimum cost, was also an influential factor. The nature of the program also was important. Among the attributes that interested students most was the length of the program and the absence of barriers of age and marriage. It seems clear, then, that one of the contributions of the associate degree nursing programs is the opening of opportunity to those heretofore unable to pursue a career in nursing.

There is much discussion now about career ladders, dead-end programs, and the like. It is interesting to recall that associate degree nursing programs from their inception have admitted nurses' aides, practical nurses, and psychiatric technicians, thus providing upward mobility economically. This is still the case. While the exact number of those having previous nursing experience is not known, our data would support the belief that the number is considerable.

As important as numbers is the expression of pleasure of many at being given the opportunity to become a registered nurse. For many this seems to be the achievement of a long-deferred goal. Without fanfare or undue publicity, these programs have opened opportunities to many to pursue a career in nursing as a registered nurse.

The graduates of the programs are, for the most part, remaining in the locality in which the programs exist. They are serving a real need for nurses in relatively small local hospitals. The emphasis on direct patient care, on the common recurring health problems, is justified when one considers the reasons why the majority of patients seek hospital care. A note on a Christmas card to a friend, which she shared with me, puts it this way: "We're finding they fill a real need. . . . We still have broken legs, terminal cancer, babies, appendicitis, etc. We need bedside nurses, not supervisors or specialists in open-heart surgery. These girls do a very competent job in our situation." The graduates do remain in nursing. In our recent study, more than two-thirds of the graduates were employed. Those remaining in the same hospitals for long periods of time tended to be the older or married nurses. Those who were not working at the time of the study were asked if they planned to return to work, and 77 percent answered in the affirmative. Thus, it can be said with some certainty that the graduates of these associate degree nursing programs are making a contribution to the communities in which they reside.

Let me turn now to the nursing community. Have associate degree nursing programs made a contribution here? I believe the answer is in the affirmative. They have hastened the transition of nursing programs from hospital to educational control. The fact that more students are now admitted to college and university programs than to diploma

programs is in large measure due to the increasing number of associate degree programs. The American Nurses' Association position paper on education clearly supports professional and technical practice of nursing. It does not seem too farfetched to say that the success of associate degree nursing programs made this position paper posssible.

Many of the traditional practices in both baccalaureate and diploma nursing programs were discarded when the associate degree nursing programs were begun. These practices include some of the admission policies referred to earlier as barriers--for example, those of age, sex, and marital status. The designation of the hospital and other health agencies as laboratories for the nursing program instead of their being simply places for students to work has had an influence on all nursing programs. One could go on citing changes, but the point has been made.

The development of technical programs has accelerated the move toward a clearer definition of professional practice. While there is still some uncertainty about the differences between technical and professional practice, there is more acceptance of the notion that the two kinds of practice can in fact be differentiated and that they must be differentiated.

Lest one assume that I believe the contribution of associate degree nursing programs is complete, let me cite some ways in which the contribution might be enhanced. If one accepts the premise that the bulk of nursing functions lies in the technical area, then the largest number of nursing practitioners will be technicians, or graduates of associate degree programs. The number of nurses needed by 1980 has been set at 1,000,000, so that with some 650,000 currently practicing, the increase in enrollments will need to be considerable. Therefore, I have some concern over the fact that one-half of all associate degree nursing programs have 50 or fewer freshman places and one-quarter have from 10 to 40 places in each freshman class. Not only does this mean that relatively few graduates will result but also that the cost of these programs to the colleges will be disproportionately high. Perhaps the greatest cost will be that of faculty not used to the full.

Another way to improve the contribution would be to have more faculty members prepared for and eager to teach in this type of program. If the programs are to be properly staffed in order to make the maximum contribution to meeting the nursing needs, then there must be an increase in prepared faculty.

Few associate degree nursing programs have done anything in the area of continuing education for the graduate nurses in the community. I am referring here to workshops, institutes, or short courses that could serve to update and extend the knowledges already acquired by graduate nurses. I do not see these related in any way to credits or to transfer for higher degrees but rather to improve the skills and knowledges necessary for continued excellence in the practice of nursing. With the present emphasis on degrees, it would appear that the achievement of a higher degree is the only route to improved practice; therefore, it is possible that at first the kind of service I am suggesting here may not seem too appealing. It is, however, my firm belief that we do not improve either the quality or the quantity of nursing care available to our citizens by a program that sees the development of technicians into professionals and professionals into clinical specialists as the only way to improve the individual's practice or the nursing care of the public. We need to make each of these practitioners excellent in his or her own right and able to achieve personal and economic reward while remaining a technician or a generalized professional practitioner. A good technician does not necessarily make a good professional practitioner. The employing agencies need to build into their system of rewards opportunities for technicians to advance in salary and recognition within the category of technicians.

A final, but by no means unimportant factor in increasing the contribution of associate degree nursing programs is the promotion of the basic philosophy of associate degree programs. Lack of understanding of or commitment to the technical practice of nursing can serve only to dilute its effectiveness. The quality of nursing care that the technician can give is well documented. To attempt to make the program something for everyone--from aide to practical nurse to the student headed for professional nursing--can result only in confusion and lessened ability to serve. Earlier in the AAJC Convention this week, a group of senators and representatives were asked to comment on the accountability of community colleges. One of them made the observation that it appeared to him that the aim of four-year colleges was to become universities and that of community colleges was to become four-year institutions. His evaluation of this situation was that the community colleges were not being accountable to the needs of the country. It occurs to me that this same comment might be made of associate degree nursing programs. Unless they serve the needs of people for excellent quality and for adequate quantity of nursing care they are not being accountable. Does this, then, not mean that associate degree nursing programs should concentrate on preparing nursing technicians rather than to try to do several things at the same time? The congressman also observed that the community colleges cannot necessarily be all things to all people. Is there not a warning here for associate degree nursing programs that should be heeded before they become too weakened by proliferation of efforts to be effective? At a time when the quality of patient care is being severely criticized and even the need for nurses is being challenged, there is need for producing nursing personnel who are better prepared, not less, who are committed to excellence in nursing care. This can be done only if we recognize and accept professional and technical practice and develop programs to prepare for these types of practice.

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DEVELOPING THE DISADVANTAGED STUDENT IN THE COMMUNITY COLLEGE

James A. Colston

Educational literature records many ways in which community colleges are serving the needs of disadvantaged students, and it describes many promising programs that are now being developed. You are probably acquainted with the report of the Southern Regional Education Board's Project on Action Programs for Expanding Opportunity, which was released in October, 1970.[1] If not, may I commend it to you as a report that describes several innovative procedures for enrolling minority students and providing programs of distinct value to them.

Among other things, the report points out that a technique that has been effective in one junior college might not necessarily be effective in another. Therefore, each college has to design its own approach to serving the needs of the students it enrolls. Although the "open door" is a step in the right direction, it is not in itself enough to meet the needs of the disadvantaged student. Administrators, faculty, and students must make a commitment to meet the educational needs of the entire community served by the institution.

In my presentation today, I wish to make, in abbreviated form, a few suggestions in regard to developing the disadvantaged student in the community college.

1. Finding him.
   a. Liaison with high schools (before admission).
   b. Community agencies can help.
2. Making him feel welcome.
   a. Treat him as a mature individual.
   b. Remove as many financial barriers as possible.
   c. Provide him with a pleasant environment conducive to study and learning.
3. Motivating him.
   a. Understand his needs and willingly work with him in his efforts to meet them.
   b. Convince him that he can succeed by raising his level of aspiration.
4. Educating him.
   a. Adapt curricular offerings to meet his needs.
   b. Through counseling, tutoring, and remediation services, bring him up to college-level performance as soon as possible.

The major portion of the rest of my presentation will be centered around our efforts to serve the disadvantaged students at Bronx Community College, an institution located in the Borough of the Bronx in New York City.

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The Borough of the Bronx has a population of close to one and a half million. Although this population has remained fairly constant over the past 30 years, there has been a dramatic shift in its ethnic composition.

In 1960, whites accounted for about 75 percent of the total population, but they are now estimated to account for only 60 percent. Puerto Ricans and blacks constitute about 20 percent each of the borough's population, and the evidence indicates that this shift in ethnic distribution is continuing. From this population, we draw approximately 75 percent of our total student body.

The parents of many of our students are in rather low income levels. In fact, the median family income lags behind the national average. As you would expect, the level of educational attainment of our incoming students is correspondingly low.

Since we are well aware of the social and economic environment in which our students have grown up, we recognize their educational deprivation and are constantly searching for ways to overcome their early disadvantage, so that they can proceed with their college work on a level with the less disadvantaged.

Now, as many of you probably know, Bronx Community College is a unit of the City University of New York, which presently enrolls approximately 200,000 students on an open-admissions basis. Currently, Bronx Community College is one of 20 such units, and it is expected that there will be more as time goes on. Helping the disadvantaged is nothing new for the City University. In fact, long before open admissions became a reality last fall, the City University had pioneered in providing special programs and services for the disadvantaged student.

As early as 1964, the City University started the College Discovery program as the first of its special efforts to enable disadvantaged students to enter college. This program was an imaginative effort to find new ways of identifying talented students who were not doing well in high school and of raising their aspiration and achievement. Under this continuing program, which is being expanded, students enter a transfer program at one of the eight community colleges in the City University system after a summer of remedial work and testing. Many of these students are given reduced or adjusted schedules to enable them to make up deficiencies while working for an associate degree. Incidentally, upon completion of the two-year associate degree program, they may automatically transfer to a four-year college if they so desire.

There is another aspect of the College Discovery program that is worth mentioning. In each of New York City's five boroughs, one high school has been designated as a development center. This means that as early as the ninth grade, students are selected for special guidance and instruction by counselors, who work in cooperation with the community action program and other social agencies. The selections are made on the basis of the students' potential, not their present grades. The basic purpose of this phase of College Discovery is to raise the educational aspiration and achievement levels of talented youngsters through intensive college preparatory training. Throughout the program, intensive counseling, both academic and personal, is an integral part of the student's education and training.

A program similar to the one just described was established in 1966 for the City University's senior colleges. That program is called SEEK, which stands for Search for Education, Elevation, and Knowledge.

At Bronx Community College we have, of course, participated fully in the College Discovery program from the beginning. In 1964, the first year of its operation, we admitted 120 students to the program. This year, we are serving well over 500 students in College Discovery.

Later on, I shall discuss some of the things we are doing to help disadvantaged students in our nursing program. But first, let me talk briefly about our college-wide program to help the disadvantaged student overcome deficiencies in reading, study skills, and mathematics and about our program of service to the larger community.

At Bronx Community College, the Reading and Study Skills Lab is an integral part of our program. Every freshman is given a reading test in order to determine his strengths and weaknesses. If his test score falls below a certain minimum standard, he is assigned to the lab for intensive practice.

When the student comes to the first lab session, we tell him precisely what we hope to accomplish. This is very important, because our goal is not only to teach him the skills of reading and studying but also to build his self-confidence and help him to overcome the psychological effects of repeated failure. We also tell him that there is no punishment for failure in the lab--that, on the contrary, we guarantee success.

Instruction in the lab consists of three steps, taken concurrently:

1. Intensive reading experience, geared to each student's level of achievement.
2. Teaching of study skills, such as how to take lecture notes, use the dictionary, et cetera.
3. Demonstration of proper textbook techniques, with books in actual use in college credit courses.

In addition to printed media, instructional methods include audio and film strips, and we will add others if we find that they will serve the needs of our students.

We believe we are on the right track, because tests show an improvement of two years in the average grade level in reading of students who went through the Reading and Study Skills Lab in the 1970 fall semester.

We also place great emphasis on helping the disadvantaged student to overcome deficiencies in mathematics and to upgrade his computational skills. The first thing we do is to give a diagnostic test to each student enrolled in a basic mathematics course in order to discover his major deficiencies. In discussing this initial test with the students, our instructors have learned that the most important obstacle to be overcome is the negative attitude of the students toward the learning of mathematics acquired as a result of prior unpleasant experiences with the subject. In the beginning, many of them frankly feel that they will never be able to conquer this impossible field.

Our teachers have found that to overcome these negative attitudes and to motivate students, the best approach is to include as many audio-visual devices and self-instructional materials as possible in the instructional program--tape recorders, loop projectors, computational skills kits, programmed workbooks, et cetera.

Since participation is entirely on a voluntary basis, the student must set aside several hours of his free time every week. We are gratified to find that many of them are now spending more time in the laboratory than they had originally planned. This stems from a feeling of accomplishment which spurs them on to further work.

In summary, here are the most important features of this program:

1. It allows the student to work at his own rate of learning. Constant self-testing by means of programmed materials is built into the program.
2. Instruction is individual or in a small group.
3. The laboratory is open from 9 a.m. to 5 p.m. every day, and students are not restricted to specific hours.

4. Students learn to work independently, but highly qualified and experienced full-time instructors are available as resource persons when needed.

5. Special assistance is available in any of the courses in the mathematics curriculum--with topics studied at Bronx Community College as well as with work done in high school.

I might add that although this program was started only last fall, both students and faculty have declared their enthusiasm with the results achieved. Present plans call for the expansion of the remedial mathematics program in order to accommodate the entire population of the College.

Our Evening and Continuing Education Division offers many opportunities for the disadvantaged student. In addition to regular college-level courses, we offer a wide variety of community programs that reach out into the community and provide educational and skills training for people of all ages. For example, Bronx Community College operates the two largest of the eleven Regional Opportunity Centers in the City of New York. In the current academic year, over 400 men and women, mostly adults and many of them previously unemployable, are being prepared for gainful employment through educational upgrading and vocational skills training. The program at these Regional Opportunity Centers was developed in cooperation with the Human Resources Administration of the City of New York.

Our college operates many other specialized community programs for the disadvantaged. There is no time today to describe all of them, but I would like to tell you briefly about a few that we believe are particularly significant.

We have developed a program for upgrading clerical and typing skills for mothers of young children who are attending Head Start classes. Quite often, these mothers cannot come to classes because they must take care of other children who are not in Head Start classes. To solve this problem, we have provided a Day Care Center for those children so that their mothers can attend the typing classes without having to worry about their youngsters.

Some time ago, it was brought to our attention that non-English-speaking employees of certain municipal and other nonprofit service agencies were unable to gain promotions because of their language handicap. To help them overcome this handicap, we set up courses in English as a Second Language, which these employees take at their place of employment.

Some of our community service programs offer college-level courses for full credit. A good example is a released-time program that we operate for the nonprofessional employees of a mental care center. Briefly, these students are taught the dynamics of intergroup relations, which will make them more effective in their contact with patients; and while they are learning, they have the opportunity to accumulate college credit applicable toward a degree.

Another example is the program for the paraprofessional teacher aides, with over 600 presently enrolled. This is a career-ladder program, primarily for neighborhood parents who are high school graduates and who are serving as teacher aides in the public school system. Some students enrolled in this program may aim for an associate degree after two years; others for a baccalaureate degree leading to a teaching license.

Let me give you one final example of a community service program designed specifically for the disadvantaged. Using our college swimming pool, we are offering water safety instruction and senior lifesaving and junior lifesaving certificate programs. Last

year, the graduates of these programs became the first nonwhite instructors in camps throughout the metropolitan area--and at very good salaries, too.

Altogether, a total of 16 community service programs are now in operation throughout the Bronx, and an additional 18 programs are in the planning stage.

I believe that this audience would be particularly interested in what we are doing for the disadvantaged student in our nursing program. And I might add that the great majority of our nursing students are the victims of some disadvantage.

Our nursing program is one of the largest, if not the largest, community college program in the country. And to give you some idea of its mushroom growth, let me indicate that in 1960, we started the program with 44 students. The enrollment now is over 1,000.

Incidentally, approximately one-third of our nursing students enjoy a unique advantage in that they are offered free room and board in our modern nurses' residence. At present, 360 students are in residence, and we have a waiting list of several hundred.

Let me take a few minutes to discuss briefly some specific aspects of what we are doing to help these students, most of whom come from very poor families and many of whom find it difficult to adjust to college. I believe that the instructional methods we have developed are particularly appropriate for disadvantaged students, although all students could probably benefit from them. In the first place, all lectures are available on tape. The Nursing Center has its own library, and if a student wants to have a particular lecture repeated, all he has to do is go to the library and check out the lecture, along with a cassette recorder, and take it to one of the carrels provided for this purpose. And to make sure that the student feels comfortable in using the cassette, we have made a TV film demonstrating its use.

Similarly, lab demonstrations are available on TV film and can be repeated as many times as necessary. Students, as well as faculty, appear as lab demonstrators in these films.

As a further aid to rapid progress for our students, we have put widely used books and articles on microfilm. Thus, the student need not be held up in his studies when such materials required for his courses are being used by others.

It is important to point out that this whole area of instructional technology and its use is under constant review by an Audio-Visual Committee consisting of students, faculty, and audio-visual and laboratory technicians.

Many of our students in the nursing program gave up positions as practical nurses to enroll in it. Since a good many have been out of high school for some time, we had to find a way to help them to cope with difficult college textbooks, which are on a much higher reading level than their previous experience prepared them for.

All students assigned to the Reading and Study Skills Laboratory are given a reading program based on a careful diagnosis of their individual strengths and weaknesses. When we tested students in the reading lab at the beginning of the 1970 fall term, we found that their average grade level was 8.6. By the end of the fall semester, this had been raised to 10.9, an average gain of two years' growth in one semester. Furthermore, 92 percent of all nursing students assigned to the reading lab had made substantial progress by the end of the semester.

One of the most effective innovations in the area of personal counseling is our "big sister" program, which is run by the students themselves. Every incoming freshman has a big sister or a big brother--yes, we have 36 male nursing students, so big brothers are needed,too. Big sisters and big brothers are seniors to whom freshmen may turn for

help. In close cooperation with our professional guidance staff, these big sisters and big brothers make it easier for new students to adjust to communal living and to develop emotionally and intellectually.

It has been our experience that this approach has helped to open new horizons for students whose social and cultural background has done little to prepare them for the great world beyond their restricted environment. At times, we have even found it helpful to involve a student's immediate family in the counseling process.

Earlier, I mentioned that a number of our nursing students have the advantage of living in the nurses' residence. However, about two-thirds of our students, many of whom are mature women with families, are on their own, and they often need financial assistance. This year, 125 of the neediest students were awarded federal nursing scholarships, and an additional 121 students have received federal nursing loans.

Finally, let me share with you some of the things we have learned about how to help the disadvantaged student.

First, we must help the student to feel a sense of his own worth and instill in him a sense of being needed. In order to gain a sense of security, the disadvantaged student needs constant support and encouragement. Second, he must be made to feel that the faculty is sincere and that his teachers really want to help him to succeed. Third, the disadvantaged student needs to know that somebody is always available to discuss with him his academic and personal problems--somebody who cares and who knows how to listen. We have learned that these factors combined can do wonders in raising a student's aspiration and helping him to realize his full potential.

The idea of improving a person's performance by instilling in him high expectations and by raising his sights has been stated beautifully by the great poet Goethe: "If you treat an individual as he is, he will stay as he is; but if you treat him as if he were what he ought to be and could be, he will become what he ought to be and could be."

I believe that if all of us keep this advice in mind in dealing with our students, and especially disadvantaged students, we will be well on the way toward developing their potential and helping them to succeed.

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EDUCATING THE DISADVANTAGED STUDENT

Cleveland L. Dennard

Officers of the National League for Nursing, fellow students, I'm delighted to be present this morning and to have the opportunity to participate in your annual conference. The first reason for my delight is simply that I find myself in the presence of a gentleman whom I have known and admired for the last 20 or 25 years--Dr. Colston, of Bronx Community College. My admiration grows out of his efforts to improve the quality of higher educational administration. My delight in being with you today is due, secondly, to the National League for Nursing's historical commitment to improving the professional capability of its own group. And any group that perceives itself as a profession has to have a capacity to monitor itself and to be responsible to the dynamics of its own growth. Thirdly, I am happy to be with our good friend, Dr. Bard, president of Baltimore City College in our neighbor city.

The subject "Educating the Disadvantaged Student" is one about which I have serious hang-ups. My visceral reaction has more to do with the condition in society that makes such a label necessary than with the subject per se.

The founding fathers assumed that when men left Western Europe, the Third World, and Asia to come to America, new approaches and new attempts would be made to improve the quality of communications between people. But we have reached such a point in our society that whenever social crisis occurs, we create systematic slogans for conceptualizing very complex problems and then address ourselves to the slogans. This is a tragic phenomenon in American society, representing a kind of intellectual snobbery that robs men of their personal dignity. The action itself is a type of viciousness on the part of a people. Those of us in higher education, secondary education, nonformal education, are frequently guilty of the same kind of thing. And I'm frequently disturbed when sociologists, psychiatrists, and manpower specialists suddenly decide that there is a problem of such magnitude in American Society that the only way to get funded by Congress is to put the problem in the context of some kind of label.

With the population migration from the rural areas of the South and the Southwest to the cities, Americans suddenly realized that the rural resident of this nation was not equipped with urban employment skills and therefore was economically disadvantaged.

Through systematic testing of public school students throughout the South for the purpose of finding out how different black students were from white students, educators determined that the low-scoring blacks were culturally deprived.

After the Civil Rights Act was passed, we needed other ways to estimate individuals. And subsequently, legislation was enacted by Congress and the States.

Now that all of us need money to do all the things that we have to do, we permit ourselves to get swept up into the aura of federal funding and we use the language essential to articulate justification for federal dollars. In the process, we lose sight of whatever damage is done to human personality. So it is only in that context that I've become vis-

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ceral--we are not intellectually sensitive to what we are involved in. Callousness can be as severe as actual intent. So I urge you to become wary of labeling generic groups as you have done with blacks by identifying them as disadvantaged.

As an educator interested in providing improved health services in the District of Columbia, I'm awfully concerned about what transpires between the teacher and the student in the classroom. And I'm even more concerned about what the institution does. The critical professional issue is expressed in my concern about the teacher's understanding of the learning process--about the teacher's sophistication in teaching. At Washington Tech, we are particularly concerned about what is required of the graduate after he or she leaves us and about making that the basis for determining what ought to occur while he or she is with the teacher. These are very difficult questions to address. They are, at best, superficially handled by us and, I'm sure, by many other institutions. It appears certain that the matter of superficiality is what the gut-level issues are about. To the extent that we do not have command of the answers to these kinds of problems, associate degree nursing programs have failed to prepare themselves for the time when a student who has not demonstrated normatively what everyone says he should have demonstrated when tested will present himself to us. Then, it is we who will have a problem, not the student. What does that mean? In the Middle States area, a secondary school accredited by the Middle States accrediting agency requires that the student complete at least four years of English, three years of social studies, two years of science, one year of math, and an assorted number of electives covering a range of options in language, math, music, et cetera.

What should a student who has completed four years of high school English in an accredited high school be able to demonstrate intellectually? Should he be able to rap? Write an article for the student newspaper? Prepare a term paper on sphygmomanometers? Be able to spell nine-syllable words? What should a student who has been admitted to an ADN program be able to do? In English? in math? in the biological sciences? in chemistry? What should a student be able to demonstrate upon leaving the ADN program as a graduate? What criteria are to be used to determine that the desired capabilities exist? What competencies should he or she have? There are six skills that seem to me to be pertinent: (1) the ability to conceptualize, (2) the ability to analyze, (3) the ability to discriminate, (4) the ability to make inferences, (5) the ability to synthesize, and (6) the ability to generalize. What can we use as evidence of these skills? When does a nursing instructor know that a student can see a systole with his mind's eye? When does one know and how does one know that with the mind's eye, the student in fact sees systolic pressure as a concept and understands what is going on in the human body that is measurable? How does one conceptualize that? Where in Nursing, Art and Science, or the Art and Science of Nursing, depending on the test area you are using, is that found? How are the learning experiences identified? How are they measured? Is this an example of the competencies that the student should be able to demonstrate? Are these examples of what you assume you are trusting him to demonstrate on the clinic ward? Do you know that the student in fact knows? If he does know, what is the process by which this knowledge is validated? How do you know that the student can analyze dilation? Do you know that he knows the difference between the dilation of the pupil and the dilation of the pelvis? Do you relate it exclusively, in the first instance, to walking into a room in which the light is too dim and to delivery, in the second? How do you assure that a nursing student understands the process of dilation? You ask a question and he gives you an answer, or he is presented with multiple choices. How do you assess this process? How does a student discriminate be-

tween size and shape? Between the metric system in measuring liquids--millimeters and centimeters--and the apothecary system, the avoirdupois system, and the troy system of measure? How do you assure that the discriminatory capacity exists? Is it built into the curriculum? Is it what innovation is about? How do you see it? What is it that the student is expected to learn in that kind of process? What can he infer from it? Can he infer that all knowledge is the same, irrespective of its application, or do we deal purely with statistical measures? How does he synthesize information that he charts every day? What does the chart mean? At eight o'clock in the morning one condition existed. At eleven o'clock in the morning, another condition existed. At three o'clock in the afternoon, another condition existed. At seven o'clock in the evening, another condition existed. When the same data are reviewed the following day, what are the inferences? What are the implications? Is this a part of the end product we are trying to assure? If so, how do we incorporate it into our curriculum? What is it that must be learned to assure us of the desired outcomes? We tend to associate the process of synthesis with chemistry.

We complain about students not being able to distinguish between an Erlenmeyer flask and a Florence flask, or we complain when they read the graduated cylinder and the meniscus makes a dip. What happens if the fluid inverts itself? What is the relationship of this action to the phenomenon of surface tension? Suppose mercury were in the container. How does mercury behave in a container? What do you really want the student to learn--the surface tension phenomenon or how to make these distinctions? And how does he generalize about them? What I think is that we tend to concentrate on generalization and to neglect specificity--of which, it appears to me, there are five areas. Every teacher should be concerned with these, because, in my judgment, they form the intellectual basis for the use of educational technology.

About once every two years I go to the hospital for a comprehensive examination to find out the rate at which my body, now 40 years old, is deteriorating. Usually, I walk by the intensive care area and observe four or five video screens that are really oscilloscopes monitoring the metabolic rates of cardiac patients. Now, I know that you are not teaching nurses electronics as a course. I know that you are not teaching students trigonometric functions and the nature of sine curves, with which the electrician must deal. And yet, if a student is to work in intensive care in a modern hospital today, he needs to understand how the hardware works and what it means. Where in this process of conceptualization, analysis, synthesis, discrimination, et cetera, is he getting this understanding? When I get my EKG, I understand that it's hooked to a computer that monitors the process all the way through. Now, the only way in which you can program information into a computer is through the use of the new math. We're still fighting wars about those students who come to us from high school who can't add, subtract, or multiply. I want to assure you that if the students whom you graduate in 1971 add, subtract, and multiply as one did in 1935, when I started school, their addition, subtraction, and multiplication will be of no value to them.

The health service needs in America are of such magnitude and the level of our technological development is of such a nature today that the way we perceive our curriculum and the way we perceive learning are far more vital to the professional group than ever before in the history of the nation. Finally, if you review NLN admission tests and state board examinations by means of a careful item analysis, you will be amazed to find that they measure the six items delineated above. If these examinations represent the criteria for admission to and registration in ADN programs and are the predictors of

success or failure, why don't the ADN educational experiences that we describe as the curriculum reflect these six variables?

We're trying to assure that each human being who goes through an associate degree nursing program has certain competencies. And only by gearing our efforts in these directions and by reducing these educational experiences to a common body of knowledge can we accomplish our objective. All of the icing we add--the economic well-being of the student, the social orientation of the student, the language difficulties of the student, and all the other socioeconomic conditions we consider--I'm sure will fall into place.

I certainly don't want to go to Freeman's hospital and feel that the person who is operating the electronic instrumentation while my vital organs are being examined has the job because he was disadvantaged. I want to know with assurance that the student of the associate degree nursing program, upon graduation, is as well prepared as any human being can be, because you as nursing faculty have furnished him with a body of information that he was capable of acquiring and had to acquire in order to develop the competencies he will need for providing health services in whatever place he will be employed.

RELEVANT EDUCATIONAL OPPORTUNITIES FOR THE DISADVANTAGED AT WASHINGTON TECHNICAL INSTITUTE

Ernestine Brewer

As a student at Washington Technical Institute, it is most gratifying for me to share with you facts about what is going on at the school, specifically in the nursing program. First of all, to make sure that we are using the same key, let us clarify who the disadvantaged are and what is meant in this setting by the term "disadvantaged."

1. The disadvantaged student may be described as that student or individual who has been and still is low in the economic scale. His limited funds have eliminated him from the baccalaureate program. He merely wants to survive.

2. He had poor preparation in grade school and high school and failed to comply with academic standards. He failed to pass college entrance examinations or if he barely passed and was admitted to the program, he finds the pressure so great that he is not able to cope with it. Therefore, he drops out.

3. Because of his limited education, he is unable to obtain gainful employment. He is caught in a vicious circle. However, Washington Institute is making an attempt to break this vicious circle. For the nursing assistant, the practical nurse, and others who have the desire to give care to those less fortunate than they health-wise and who wish to further their careers but who, due to lack of proper preparation, failed to reach the required standards of scientific knowledge, Washington Technical Institute now provides relevant educational opportunities.

Washington Technical Institute is a recently developed land-grant community college. It was established as a result of the Washington, D.C., public education act of 1966 (HR89-791). The first graduation was held in June, 1970, when the associate degree in nursing was awarded to 27 graduates. Its purpose is to meet individual, community, and manpower needs.

For entrance, the student need have only a high school diploma or have passed the high school equivalency examination. The preadmission examination is not a basis for admission but is used solely for diagnostic purposes.

The cost of education at Washington Technical Institute is quite reasonable. Each student pays $30 per quarter or $90 per year. The student, upon filing proper applications, may receive financial aid and must maintain passing grades in order to continue to receive it.

The curriculum provides a basic academic education that includes social sciences, English, mathematics, anatomy and physiology, microbiology, and special chemistry for nurses. Because of acceleration and rapidly changing trends, the major part of training in nursing concentrates on theory and practice relating to nursing skills. Phar-

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macology and nutrition are not taught separately, but are included in the discussion of each health deviation. The student is also provided with clinical practice two days per week in designated area hospitals.

The grading system is unique in that a student may develop at his own rate of achievement. The student is graded "HP," "P," or "I" and is given time to remove the "I" so that it will not become a failure. For those who fail, individual conferences are provided to ascertain whether the student can meet the objectives of the specific subjects within a two-week period or whether he is to repeat the courses at the first opportunity.

Each student is assigned to a developmental advisor, who assists the student in problem-solving. The problem may be academic or social, or it may be concerned with career planning or the need for tutoring. A one-hour course class is conducted by the advisor to orient the student to college. Special emphasis is placed on study habits, limitations, self-awareness, and goals.

During the students' senior year, employers in the community are invited to the school and are made aware of what the student has been exposed to. At this time, gainful employment may be secured in business, industry, government, or the area health services.

Through this present program at Washington Technical Institute, the gap between dependence and independence has been bridged for many.

HOW THE COMMUNITY COLLEGE OF BALTIMORE SEEKS TO DEVELOP THE DISADVANTAGED STUDENT

Devota Kimbrow

The Community College of Baltimore has given evidence of its commitment and dedication to the community by attempting to increase its enrollment of disadvantaged students and to provide the staff and the programs suitable to their needs. Some of the areas in which the Community College of Baltimore is working to assist the disadvantaged student are as follows:

Recruitment

The Community College of Baltimore is not content to sit back and wait for prospective students to come to it--it goes out into the neighborhood to get them. The college has recognized the need for accelerating recruitment among those living in the inner city, and the Community Services Division has a three-part neighborhood recruiting program in effect. The first part of the program deals with recruitment by students. The students go into city neighborhoods to recruit prospective collegians by telling them about the college, how it can benefit them, and how and where to get details. Special emphasis is given to neighborhoods that, according to studies made, have few high school graduates who continue their education. The college utilizes a "recruitmobile," which is a portable college counseling office in a panel truck. The recruitmobile makes periodic, widely publicized visits to regular locations throughout the city. Stops are made at recreation and shopping centers, community action agency offices, and community schools. (This action brings the college to the people, especially in areas where a college education is not conceived of as a possibility for them.) Another phase of the program includes providing compensatory help to remedy educational deficiencies through techniques such as counseling, matching curriculum to students, remedial classes, and tutoring. The third phase of the program provides financial assistance and advice when needed. One of the aims of the program is to try to recruit those whose talents and potential might otherwise remain hidden because of poverty and limited vision. Inner-city student enrollment has increased significantly as a result of the recruiting efforts. The three-part neighborhood recruiting program is a major reason for the Community College of Baltimore's being named by the Aerospace Education Foundation as one of the nation's outstanding progressive and innovative educational institutions. The recruitment program and the Community Services Division were singled out for special mention by investigators from the Department of Health, Education, and Welfare.

Developmental Studies Program

The Developmental Studies Program is designed for high school graduates whose records and test scores indicate the need for preparatory work in basic skills, academic

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requirements, and/or personal development. This program attempts to provide learning experiences that are commensurate with the needs, abilities, and interests of students at the college. Since performance in higher educational programs depends, to a large extent, upon the student's verbal and mathematical proficiencies, special courses are offered in English, reading, mathematics, and science. Supportive services are provided for students in the form of special counseling, orientation, and tutorial assistance. Students volunteer as tutors. Also, teachers are hired as tutors and are paid for their services. Small-group conferences are set up for students with specific needs--for example, for those who need help in taking tests, improving study skills, writing term papers, et cetera. The number and types of developmental studies depend upon the student's needs, abilities, and interests. The director of the program is also interested in providing opportunities for the academically gifted student. This is accomplished through special projects and independent study. The overall program provides for remediation, strengthening of the self-concept, and fulfillment.

Expanding the Curriculum and
Improving Teaching Techniques

The Community College of Baltimore recognizes the need to continue and expand curriculum development in career and transfer programs. As new programs are organized, new occupations are opened to the students. The Community College of Baltimore also recognizes the need to take the different learning styles of students into consideration. The scope of teaching aids has been expanded and two audio-visual coordinators have been hired to demonstrate the use of new teaching materials and to assist teachers in using them as tools for learning. There is also an inservice teacher education program. This consists of a series of concentrated sessions on meeting the new demands of teaching in an urban college, with special emphasis upon developing teaching strategies to fit the needs of a diverse student population.

Enhancing the Self-Image of the Black Student

Since more black students are enrolling at the Community College of Baltimore, the college is aware of the need to help black students to improve their self-concept; for attitudes toward self and one's environment--especially the school environment--are significant factors in school achievement. Afro-American history has been introduced as an elective for all students and as a preferred elective for those preparing to enter the fields of government service or social welfare technology. African cultural shows are held at the college. There is black representation on the board of trustees (three out of seven members), on the faculty, and on the administrative staff. In May, 1969, the student body elected a black president and a black vice-president.

Honors Program

The Community College of Baltimore offers special courses for very bright black and white students. In the summer of 1969, high school juniors of high intellectual attainment were permitted to enroll at the Community College of Baltimore in special courses with full college credit under transfer arrangements with the University of Maryland and the six four-year state colleges.

Innovations in the Nursing Program

Some new procedures that the nursing program has introduced are as follows:

1. Large-group lectures followed by breakup into small groups (8-10 students), in which instructors seek to find out whether the students have absorbed the content of the lectures and to get feedback.
2. Before complex content is introduced, small groups are given a five- to ten-minute orientation to the content by an instructor; this is followed by large-group lectures.
3. Team-teaching faculty share experiences and ideas; black faculty can help with student-teacher orientation in such matters as learning activities and understanding.
4. All nursing faculty have regularly scheduled counseling sessions as well as unscheduled sessions.
5. Faculty and elected representatives of the student body meet together for open-end discussions. Following are some of the things accomplished by these sessions:
   a. A textbook has been changed and one has been added.
   b. Additional evaluative measures and more objective tools have been provided in the clinical setting.
   c. Some opportunities for team nursing have been provided for students in the last semester.
   d. Students have been given the opportunity to request a specific instructor in the clinical area without penalty to them.
   e. Several faculty-student get-togethers have been held.
   f. More understanding concerning the problems of the disadvantaged student has resulted.

Second Campus--A Symbol of Opportunity

A second campus for the Community College of Baltimore will be built and will be located in the harbor and inner-city portion of Baltimore. This harbor campus will symbolize that college is not necessarily out of reach for the poor and disadvantaged.

DEVELOPING THE DISADVANTAGED STUDENT AT BRONX COMMUNITY COLLEGE

Jean Pratt

There are several reasons why a student may be disadvantaged. The two most important reasons are a weak academic background and financial difficulties. The student's academic preparation in high school may have been totally deficient, which cripples him. He may lack preparation in certain subjects necessary for admission to the four-year college of his choice and so will not be accepted. Or his reading and writing skills, necessary for success, may not be adequate for college-level work. Again, the student may not be admitted, or if admitted, he may become frustrated under pressure and drop out.

In the case of the financially disadvantaged student, the family may not be able to provide enough money to send him to college, or enough to keep him from dropping out once he has begun to attend classes. The student may have to work to cover the cost of tuition, books, and general upkeep. If he works, he may have to attend school on a part-time basis, which often stretches his schooling a year or two beyond the usual time for completion of degree requirements. And if he must pay for credits because he is a part-time student, the added expense may be yet another reason for his dropping out.

At Bronx Community College, there are several ways for the disadvantaged student to overcome these obstacles and further his education regardless of his weak academic background or financial difficulties.

It should be noted at the outset that open enrollment has solved many of the disadvantaged student's problems. It admits anyone with the desire to attend college even though he may have academic deficiencies, and it provides free tuition, counseling, tutoring, and financial assistance. But this open policy has also created problems for some of the students. These problems may be handled through the same channels available to all disadvantaged students at the College.

First, there is a good deal of academic assistance available to the disadvantaged student. Remedial courses on a high-school level that develop reading and writing skills are given to prepare the student for college-level subjects. Also, courses needed by the student in order to make up for other academic deficiencies are given, and he is counseled as to the proper courses to take. Furthermore, the College has a program providing free student tutoring for those requesting it. There are extra lab sessions for science courses, in which the student may experiment, finish projects, or seek clarification of lectures and homework. Taped nursing lectures are available to students in the nursing curriculum. The tapes may be used to reinforce or clarify lecture notes. The school also has a supervised nursing lab where students may practice nursing procedures before entering the clinical area. Moreover, conference classes are held by instructors in which students' weak points and mistakes are pointed out. Referrals to tutors may be made after these conference classes for those who need tutoring. For those who are academically inclined, scholarships are available.

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Second, several types of financial assistance are available to the disadvantaged student--for example, assistance provided by the College Discovery Program and the work-study program, scholarships, loans, and FEOG (Federal Educational Opportunity Grants). The College Discovery Program has two phases: Prong I and Prong II. Prong I deals with the student in high school. He is given extensive counseling and academic preparation, with the hope that upon graduation, he will need only financial assistance. Prong II involves the older student who has been out of school several years. The student is counseled and given remedial courses and financial assistance as necessary. In the work-study program, a student is given a job--for example, as a librarian's assistant--and works several hours weekly between classes. Loans and scholarships are awarded according to need and academic standing. Loans may be on a short- or long-term basis. Federal grants, which are given to those who have exceptional needs, must be matched by some other form of assistance. Eligibility is based mainly on individual financial need and is determined by the Financial Aid Office before the semester starts.

Third, intensive professional counseling is available to any student with a problem. This counseling may cover educational, social, and personal areas and family adjustment. If problems become too involved for the regular staff to handle, psychological counseling is made available.

To sum up, it is plain to see how a student who is disadvantaged may overcome obstacles and go on to success and happiness at Bronx Community College. Much help is given to make the student's stay at the College as enjoyable and profitable as possible.

TEACHING THE DISADVANTAGED

Joanne K. Griffin

It helps at the beginning of an assignment such as this to have an unambiguous notion of the scope and the focus of the subject. The "teaching" part of the title is relatively simple: for this audience, obviously, it means teaching associate degree nursing. However, it is important to further define what, for purposes of this paper, is meant by teaching. Although this may seem to many to belabor the point, it is necessary to differentiate between teaching and learning and to underscore the point that although the relationship between the two processes is an important one, they are not necessarily inextricably united. Thus, for purposes of this paper, two major functions of teaching will be considered: (1) the designation and delineation of what is to be learned and (2) the design and provision of ways in which students may try to learn the content designated. It is important to remember that what has been taught by the teacher is not necessarily what is learned by the student (although I wish I had a nickel for every instructor I've heard lament, "But I gave that to them--we covered it! Why don't they know it?")

McLuhan has dramatically pointed out that we are in the learning business.[1] Cohen,[2] in Dateline '79, is heretical enough to suggest that in the future, one real method of evaluating both instruction and instructors will be through measurement of their students' learning and achievement. Serious consideration of these two ideas prompts the thought that it is time to begin giving serious consideration to why students don't learn what teachers teach.

The second aspect of the assignment to be defined is what is meant by "disadvantaged." This is even more difficult and subject to an infinite range of interpretations. A friend who once taught with me in a community college used to say,"When in doubt, faint." I wish it were so easy. Barbara Lewis King, in her excellent, thought-provoking paper on retention of the disadvantaged, points out that "we are not really clear as to who are the disadvantaged."[3] She claims that often the disadvantaged student is someone who is poor and who lacks something that the person who is applying the word (using the label) thinks is important.[4] If we consider this notion in relatior to associate degree nursing education, we find that usually, the disadvantaged are students who come from families, homes, ethnic groups, or cultures that differ markedly from those of the faculty and, by extension, from those of the students who have traditionally enrolled in educational programs in nursing.

This is an inevitable outcome of "open door" policy enacting the egalitarian philosophy of the junior/community college. It has been in effect for many years, although only recently in the nursing programs. Reports and data from the Nurse Career Pattern Study seem to indicate that the parents of nursing students in associate degree programs have lower occupational and educational achievement levels than do those of nursing students enrolled in baccalaureate programs.[5] Capacity for persistence in an academic discipline

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is supposedly related to intellectual home pursuits, a characteristic that is not common to the families of many associate degree nursing students. Certain demographic trends that have little or no statistical significance at this point but seem indicative of the future present the following comparison.

Men represent 3.8 percent of the student body of associate degree programs, whereas only 0.8 percent of baccalaureate students and 1 percent of diploma students are men. The number of associate degree nursing students representing ethnic and racial minorities within their communities is significantly larger than the corresponding number in either of the other two programs. As shown in a study made in 1967,[6] 35 percent of associate degree freshmen are over 20 years of age, whereas 9 percent of baccalaureate freshmen and 7 percent of diploma freshmen are over 20. Married students represent 24.5 percent of associate degree nursing students but only 2 percent of each of the other two categories of students. As for high school academic standing, most associate degree nursing students are from the second quartile, while most students in the other two programs come from the first quartile.

In summary, many more associate degree nursing students are older, come from nonwhite, nonmiddle-class homes, and have not been outstandingly successful in their previous school experiences. This is congruent with much of the voluminous educational literature on the disadvantaged, although much of this literature focuses on the problems of nursery and primary school children rather than on those of young and middle adults. The major problem, however, remains that of assisting the non- or low-achieving student to aspire and achieve in an environment that, up to this point in his educational career, has usually been perceived accurately by him as hostile and punitive.[7] Many investigators point out the self-fulfilling nature of this perception as the low-achieving student enters the school with high hopes of learning but low expectations of his ability. He defensively becomes a less and less verbal participant in the learning society of the academic community--a community in which words have such a high status value--and is perceived by the instructor as nonverbal, not motivated, not prepared, and therefore not "college material."[8,9,10,11]. In addition, many studies point out that the physical and geographic encapsulation of "minority" groups into ghettos, poverty pockets, et cetera, induces an alienation from the value system and the language of the larger society, which further increases the scope and intensity of both the encapsulation and the alienation.

Roueche has described disadvantaged community college students as (1) severely deficient in basic language and mathematical skills, (2) having unrealistic and ill-defined goals, and (3) coming from homes where there is little support for or understanding of what college work requires.[12] Much of the work of Deutsch and Reisman points out the problems that disadvantaged children have in language manipulation and symbolic thought, as well as their need for constant, pragmatic gratification and reward. Their orientation is much more toward the concrete, reality-centered now. They are much less able to work from the abstract or theoretical to the practical application than to do the reverse, and are much less motivated by either hopes or promises of future attainment.

Since language facility is identified as a major problem, it is important to examine this for its implications for our curriculums and teaching methods. I am consistently impressed when the student teachers with whom I work report on their reactions to the first written assignments submitted by the associate degree nursing students with whom they are working. The practice teachers are universally horror-struck (I suspect this is common to most new associate degree nursing educators). The graduate students are particularly shocked because the students' verbal usage in their postconferences and indi-

vidual "rap sessions" is usually much clearer and less ambiguous. I would suggest that this says something important about the value put on written assignments, and perhaps about the persistent refusal to qualitatively evaluate oral communication. Is it more important for the technical nurse to be able to write a term paper, or to actively participate in a team conference? Should a significant part of students' grades be based on written assignments?

In addition, most investigators of the disadvantaged also generally agree that the reasoning style commonly utilized by the disadvantaged student is inductive, i.e., proceeding from the specific to the more general. The transition from concrete thinking to abstract conceptualization is an exceptionally difficult one. Therefore, it seems important to examine another common component of typical curriculum patterns and teaching styles. Most associate degree nursing programs state that they teach students broad principles, which can then be applied in specific situations. If a student has real difficulty in learning in this way, however, does this genuinely provide a useful cognitive tool, or only another frustrating situation to add to the accumulated pile of failures? Might more lasting learning be achieved by providing many differing real situations that are united by a common principle which the student could be helped to uncover?

Such teaching strategies will undeniably test the imagination and creativity of the instructor, since they place different demands on her capacity to organize learning experiences with sequential common cores and then to teach in novel ways as she helps the student weed out the extraneous, isolate the significant, search for common or related elements, and synthesize a series of valid, tested generalizations into a meaningful conceptual framework.

A third point of departure concerns the need for providing meaningful, successful learning experiences in which recognizable achievement is perceived by the student and rewarded by the instructor. This is undeniably important for all learners, but much more so for students whose entire scholastic career has been typified by one failure after another and by put-down after put-down by the instructional staff. If the cycle of alienation is ever to be broken, it is in this fashion: in the achievement of genuine success and in the reception of an earned commendation or other reward. Most of our students are reasonably well informed about their deficiencies and the "areas needing improvement." I wonder how many realistically identify what they can do well?

Many of you may be aware of my dislike of the word supervision. I suspect it is the result of years of cumulative victimization by "snoopervision." My point is to illustrate what is an unfortunate pattern of practice in clinical supervision and instruction. I suspect that we are so unable to tolerate error in the clinical situation that all our senses are attuned to it. We do look for mistakes. The result, I surmise, is that this fosters a climate of heightened anxiety and causes them--and in addition, makes us much less aware of the positive progress made by students.

A fourth significant area of concern has to do with our values of time and punctuality. When one day is much like the other and one hour undistinguishable from that which precedes and that which follows, there is no great urgency to meet a deadline or to be punctual. Punctuality is very much a middle-class, Puritan value, and it is also very important to most nurses and nurse educators. We use time consciously and unconsciously to reward and punish, and we often respond to students' use of time in an equivalent fashion--"bad students" are late, inconsiderate; "good students" are on time or early.

A more significant aspect of time orientation, however, has to do with rates of learning and patterns and sequences of lessons and courses. Innumerable educational theorists

have demonstrated the individual character of learning and have pointed out that countless factors influence capacity for learning. One of the most interesting recent findings is summarized by Carroll, who states that "rates of learning vary not only with different aptitudes (and different tasks) but also with different methods of instruction."[13] He also says that rate of learning varies from learner to learner and with the same learner, depending on such variables as state of health, time of day, et cetera.[14]

This points out the need to provide for a variety of experiences in working towards achievement of the same objectives. Postlethwaite[15] and his "disciples" illustrate the value of providing the student with many options, or alternate routes, to reach the same place. It means much more work for the teacher, who must not only dream of a variety of learning experiences but also prepare them. Most of us have enough difficulty in preparing one lesson for class that we hope will motivate--stimulate and provoke learning. Are we equal to the task of preparing tapes, slides, experiments that might be equivalent to that lecture? Can we meet the challenge of individualizing instruction so that the learner can utilize his style, and not be confined to that of the teacher?

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WHAT'S "DIFFERENT" ABOUT TWO-YEAR COLLEGE TEACHING?

Roger H. Garrison

I am sorry to have to respond to my own question by saying, "Not much." At least in most two-year colleges, not much. This is too bad, because for a few years during a period of furious growth in the early and mid-1960's it looked as though the junior college might truly become the teaching institution that it claims to be--the bold, new innovating type of college that would, by the very excellence of its instruction, shame the stodgy old four-year institutions into improving their teaching.

But there are already signs that as junior college staffs are becoming more professionalized, they are at the same time hardening into closed-interest bureaucracies. This sclerosis usually begins in the heads of administrators, but faculty are not far behind them in the hardening of the intellectual arteries. So, emphasis increases on such matters as standings, ranks, prerequisites, benefits, and procedures and decreases on open-ended experimentation, freewheeling trust of student motives, and cheerful acceptance of considerable failure--or qualified failure--in attempting innovations.

The bureaucratic forces are persuasive, reasonable-sounding, and powerful, whether they are in colleges or influencing college practices. Accrediting agencies, for instance, tend to wield a power all out of proportion to their usefulness--mainly because accrediting standards are apt to be based on accumulated assumptions that haven't been seriously questioned for a long time. Or, exterior examinations--in the name of uniform standards--are apt to press a dead hand of conformity on teaching practices. In New York State, for instance, how many high school teachers single-mindedly teach for the Regents' exams? How many of you teach for licensing exams? (And how many of you dare to innovate much with accrediting and outside exams hanging over your curriculums?)

There has been a lot of talk in the past five or six years about innovation, about new approaches to teaching, but most of this talk stems either from wishful thinking or from a misunderstanding of the real nature of innovation. An impressive amount of money--at least amounts impressive enough to excite several dozen large corporations--has been spent on innovative hardware and facilities. But the impact of all this sophisticated gadgetry on the average junior college teacher has been something less than impressive. I am reminded of a limerick--and the response to it written by a teacher with a sense of humor. The limerick goes:

> In the latest report of the Dean
> Was high praise for the teaching machine:
> Claiming Oedipus Rex
> Could have learned about sex
> By himself--and not bothered the Queen.

And the faculty member's reply was:

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What you say may be perfectly true,
But to give academics their due,
Couldn't Oedipus Rex
Have learned about sex
Out of books--just as most of us do?

What needs to be understood is that a true innovation is a generic outgrowth--it is a survival mechanism whose initial value is to conserve, for it makes possible a continuance of the same functions under changed circumstances. An innovation, then, is conservative, in the best sense of that word. For example, in evolution, our animal ancestors were not striving to become human; they were doing what all animals do--trying to stay alive. They had to innovate to stay alive as a species. The Devonian lungfish, our ancestor, evolved into the earliest amphibian by developing strong fins, which in due time became legs. But the strong fins were not developed as an "innovation" so that the fish could invade the land. The climate of the Devonian epoch was tempestuous; the water level of the pools in which the lungfish lived was subject to sudden recessions. So the lungfish, when stranded, had to develop fins strong enough to get himself back to the water. The analogy for teaching is simple: a true innovation is simply a more efficient way of doing the same job under changed circumstances.

The only new approaches to teaching that will amount to anything are those that begin with new thoughts in an individual teacher's mind about old, familiar, tough problems.

For instance: We still have to get students interested and involved enough to want to learn much of anything. We say "motivation"--a dreadful word. We still have to determine whether we are communicating with students at all. We still have to decide whether a student is competent or not in our field. We still have to handle a variety of student abilities all at once and to create some sort of satisfactory learning situation for each of them.

These challenges are no different now than they were 25 years ago; but if we learn to handle them better--differently--we will be innovating, in the best sense of that term. First, however, a caution: fresh or offbeat techniques or devices are all too often mistaken for innovation. Though novelty in the handling of a class is sometimes refreshing and useful in shock value or interest value temporarily, it is not in itself a "new" way to teach. Many novel ways of presenting material or stimulating a class are as foolproof as tickling a baby--and as useless. Preoccupation with the novel can quickly lead either to distraction or mere frivolity. Further, a novel and successful method for one teacher may be a disaster for another. We all accept, I think, that teaching is a highly individual craft; and we therefore must equally accept that solutions to particular teaching problems almost have to be self-discovered. (If we would take the same attitude toward our students, we might be surprised at the tremendously increased interest in learning.)

Innovations in teaching come when the instructor honestly tries to do himself out of a job as quickly and efficiently as possible. This is an old injunction, but it is the one central energizing attitude behind any new approaches to teaching. We have yet to take it seriously.

For example, we still dominate far too much of the student's time and attention. We preside over classes; we give out assignments; we grade work constantly; we insist on common deadlines; and we talk and talk and talk. We almost guarantee student passivity. Certainly, we guarantee student dependence upon us. The trouble is, I suspect, that we're organized for certainties. We're utility-oriented, function-oriented, result-oriented.

Actually, if we are really interested in student learning, we ought to be organized for uncertainties, for partial failures, for qualified successes, for accidental insights, for fumbling around--and especially for the emotional climate of ferment that would go with these. We are perhaps too concerned that a student cover material and pass a course and not concerned enough with how the student is involved or how she learns to cope with her inevitable frustrations and irritations as she works at it.

Let me say this in another way, because it is too important to gloss over. We are too apt to prepare a person as a function; but we don't prepare that person in herself to manage her own learning after she gets away from our tutelage. To teach a student to learn significantly is to teach her self-management in those areas for which we are responsible. For instance, we receive so much spoon-feeding in our society in terms of how-to-do-it instructions--in school, at home, at work--that many people lack almost any opportunity to risk learning. As a result, they don't develop the attitudes, feelings, and abilities that they need to meet new or changed conditions confidently and effectively. The instructions accompanying many a Christmas toy are symptomatic of the problem--for instance, "How to Have Fun and Play With Your Scale-Model Crying Doll." What an invitation to mental unemployment! For grown-ups with hang-ups, the publishers' lists are filled these days with how-to-do-it manuals for improving the sex life. I get a kind of dull and sad picture in my mind of thousands of yearning and disappointed couples reading like mad and getting a lot of advice and a little bit of knowledge--and then being their same old dreary ineffectual selves in bed. As one psychologist said bluntly to a class of college boys: "You can read all you want to of Freud, but sooner or later you've got to go out with girls."

It is not our function as teachers to be the medium through which a student experiences a subject. It is not your job, for instance, to teach your students a subject called "anatomy" or "pharmacology." Rather, your first task--your only significant task--is to instruct your students in how to learn the material so that they can then proceed to learn the subject for themselves. For instance, if your students spend most of their time following your detailed instructions, they are, in fact, learning how to follow your instructions; they are not necessarily learning how to think for themselves in a similar circumstance--or in a new one. Similarly, when you give a demonstration, its purpose should be to exemplify a mode of action or a technique of approach to a problem; it should not merely be a "live" presentation of a textbook illustration. (One of the signs of the professional is that he has efficient, reliable, numerous ways of approaching new problems.)

Another way that innovations will come in teaching is when we question--strictly and harshly--the assumption that in any given course there is a certain amount of material to be "covered." Given the increasing mass of material in almost any subject area, this assumption is nonsense on the face of it. We have plenty of evidence that the more a course tries to cover, the less a student retains effectively. The whole "coverage" business, incidentally, is one of the mischievous effects of Regents' exams or any broad-gauge "qualifying" exams, for these emphasize rote learning and quantity-learning at the expense of a much more vital kind of learning. The question of coverage may be more profitably explored, I think, by asking what elements or aspects of the subject must be learned as tools, as means for the student to employ independently in further study of the subject. Said simply: what and how much does this student have to learn thoroughly in order to be equipped to go on learning for herself? This question is related to the pace of a course, for example, because it may well be to the student's advantage to

spend much time at first on a few basic skills and concepts so that she can later deal more efficiently and more quickly with a greater quantity of subject matter.

In many ways, our teaching is appallingly inefficient. Perhaps the greatest source of this inefficiency is our failure to provide realistically for differences among students. Yet, we assume that we do treat our students as individuals; at least most of us do, I am sure, attend with friendly concern to our students as persons. But the real question is whether we do so professionally. For instance, we are still addicted in our course patterns to what could be called the "phalanx method," where it is standard practice for us to move our students forward at the same speed, cover much of the same material in identical ways, and reach the same passing points at the same time. Yet, I'm sure that we believe that one person is different from another and could therefore be supposed to work at a differing speed. And we evaluate by the phalanx method, too. But should we? I believe that students need evaluating; and I am not one who believes that getting rid of grades would solve many of our problems. But it is the timing and the kind of evaluation that need rethinking, with a view to providing better for student differences--and especially to providing more efficient reinforcement for the learning of each student at a time and in a way most useful for her as an individual.

A final point--I want to keep this relatively brief so that we can, hopefully, develop some discussion afterward--we should look most critically at our assumption that the question-and-answer pattern is useful in everything we do in school, from exams to the so-called "Socratic" dialogue in small seminars. (It's instructive to remember that Socrates knew the answers to the questions he asked, and his technique was to lead his students to his answers.) Yet, when you stop to think about it--as we too seldom do--there is nothing more irrelevant than the answer to a question that nobody has asked. School is full of such answers--and shockingly empty of student questions, real ones. Yet, question-and-answer is such a familiar part of teaching that it scarcely occurs to us to ask why this should be so. This is a relatively rare form of behavior outside of school. Outside of school, the person who thinks productively is the person who can devise the most appropriate approach to a problem; who knows how to ask the right questions at the right time for the right reasons. Answers nearly always shut off further questions. It is almost exclusively in the schoolroom that "answering" is expected behavior.

For instance, wouldn't it be more important for us to cultivate and reward a student's ability to identify a difficulty and mark its boundaries, to formulate effective approaches to a problem, than to encourage her merely to provide with an almost knee-jerk reflex answers to questions she may not even fully understand? Our job, essentially, is to train a student to act effectively in the face of a problem--not merely to react to prepackaged problems with predetermined answers.

To conclude: I submit to you that every subject--any subject--can be analyzed and appropriate teaching practices be developed that will capitalize on what you get paid for--namely, your knowledge of your subject, your professional judgment as to what is important in the subject, and your ability to teach students how to learn in that subject. This means designing the learning work so that student and subject come most actively together, with less and less interference from you, so that eventually, you become what you should be--a resource, a responder to real student questions, a participator in class and clinic and not a dictator in them, and, in the last analysis, a person who has, within her own field of competence, helped other human beings learn to manage themselves with increased skill and understanding.